

The ART of

HAND SEWING *Leather*



by AL STOHLMAN

CUSTOM-MADE PROJECTS ON THIS, AND BACK COVER
ALL COMPLETELY HAND SEWN.



ACKNOWLEDGMENTS



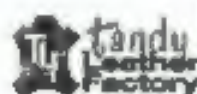
ANN STOHLMAN

HAND SEWING THE GARTLE ENDS ON A SADDLE SHE IS MAKING

A special thanks to my wife, Ann, for her most valuable assistance in making this hand sewing book a reality. She has personally sewn most of the items in this book, including inside and outside covers . . . all by hand. In the past fourteen years she has sewn *thousands* of leather projects, dozens of saddles and related items . . . using many, many one lb. spools of linen thread. Every stitch in the items and projects shown . . . is *hand sewn* . . . practically all of them by Ann.

Thanks, also, to Mr. Cletus E. Manley of Peoria, Illinois, for information on the hog bristles.

Al Stohlman



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FOREWORD

This book, "The Art of HAND SEWING LEATHER" . . . is the culmination of over 30 years of knowledge and practical experience in Hand Sewing. It is presented to perpetuate the fading art of hand sewing . . . in this age of mass production by machine. Though slower, hand sewing is superior to machine sewing. It is the best method of stitching two or more pieces of leather together for lasting years of wear and service.

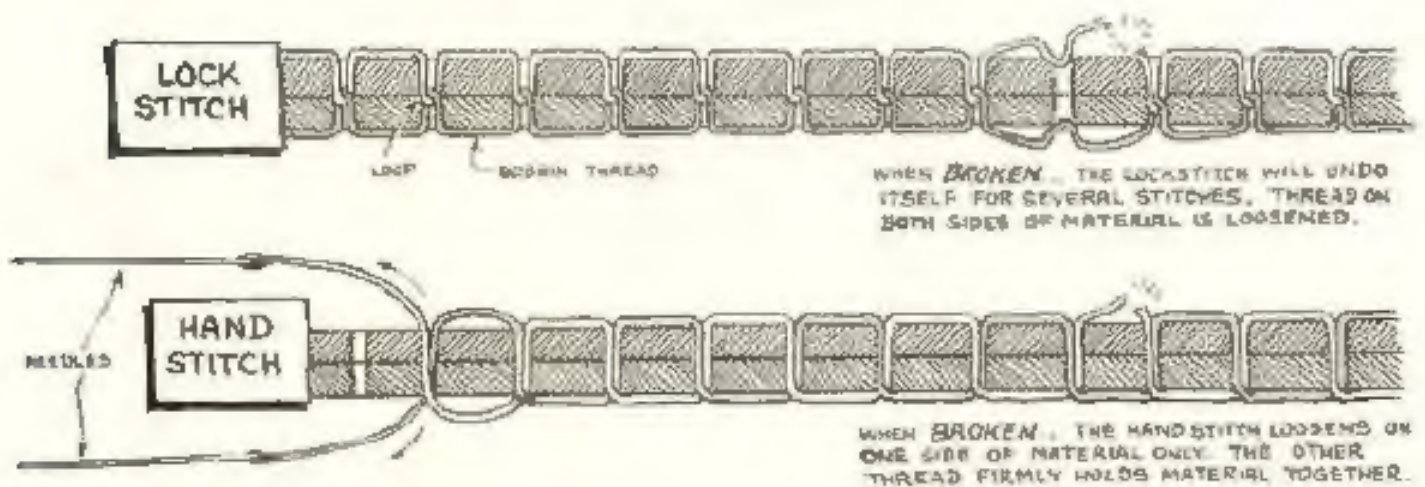
No patterns, for specific projects, are presented as space does not permit. The instructions in this book are to enable you to sew any project you may wish to make or repair. The various techniques included in these pages are given to assist you with any sewing endeavor.

Before machines, everything requiring stitching was sewn by hand. Most of the old-time boot and shoe-makers used hog bristles (in place of harness needles) and a curved awl for sewing in difficult places. There are still a few, today, who sew in this manner. Much hand sewing is still being done where better construction and quality leathergoods are desired. In the Stohman's saddlery shop . . . every stitch in all

saddles and all leather projects is completely sewn by hand. No machines are used.

There are many things that can be sewn *only* by hand. Much of the repair work demands hand sewing, as it may be impossible to re-sew on a machine though it was originally done so. An article is usually constructed in step-by-step stages. Therefore, when an inside seam (for example) rips loose, it is usually impossible to put on a machine again, without taking it all apart. It can, however, be re-sewn by hand.

There are thousands of different sewing machines, designed for multiple or specific uses. The most common of the machine stitches is called the "lock" stitch. This is made with a top thread and a bottom thread . . . which is in a small spool called the "bobbin". The lock stitch is formed by the top thread going around the bobbin spool, picking up the bottom thread, to form a loop. When properly adjusted, the loop is pulled between the two thicknesses of materials being sewn. The cut-a-way illustrations below show the differences in the LOCK STITCH . . . and the HAND STITCH.



To the beginner, Hand Sewing will seem uncomfortable and slow. Disregard all attempts at speed . . . learn to sew properly, as instructed. You will find hand sewing is fun and easy. You will soon be fast and professional with your stitches. Speed will come by itself . . . with practice.

TOOLS AND MATERIALS REQUIRED FOR HAND SEWING



BEE'S WAX

USED FOR PRESERVING LIFE OF THREAD.



800 EYE HARNESS NEEDLES

BLUNTED ENDS SIZE 4 OR 5 IS A GOOD ALL AROUND SIZE.



AWL DIAMOND BLADE

FOR STABBING HOLES.



OVERSTITCH WHEEL

FOR MARKING STITCHING HOLES NO. 6 IS GOOD FOR GENERAL USE.



STITCHING GROOVER

FOR CHANNELING A GROOVE TO RECESS THE STITCHES, GIVES LONGER LIFE TO THE THREADS.

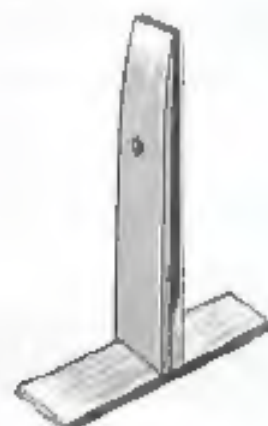


GAUGE COMPASS



UNWAXED LINEN THREAD

BEST FOR HAND SEWING, 5 CORD IS GOOD FOR GENERAL USE. PRE-WAXED THREAD IS NOT GOOD, AS PROPER KNOTS CAN NOT BE MADE.



LACING PONY

This is a substitute for the stitching horses shown at right. It is good for small items, but not suitable for heavy work. It is placed on a chair and set upon . . . to hold.



SADDLER'S STITCHING HORSE

This tool is used for holding leathers in the clamped jaws . . . allowing both hands to be free for sewing. Some items cannot be put in the stitching horse and must be held between the legs, or in some other fashion, to sew. Example on page 31.



AL STOHLMAN STITCHING PONY

This tool was designed for those who are unable to obtain the regular stitching horse. This is designed to use with a regular household chair. Build your own; plans on page 66.

*Complete PLANS
FOR BUILDING THE
AL STOHLMAN
STITCHING PONY
ON PAGE 66*

PREPARING THE THREAD

Preparing the thread . . . properly . . . is of the utmost importance for ease of sewing and lasting service. Special attention should be given to tapering the ends and threading the needles. Carefully study the photos, drawings, and instructions on this and the following pages.



To determine correct length of thread, pull two lengths off spool . . . equal to your arms' lengths (shown above). This will be about 8' to 10' in total length. Do this with each thread you prepare. Do not cut thread length to fit any particular project. Make them all of about the same length. No thread will be wasted. Instructions explain joining threads, using short ends, etc.



- 1 Place thread and knife on bench, as shown, about 2" from end of thread. Rest heel of blade on bench and tilt the blade angle toward the end of thread (see arrow).



- 2 Apply light pressure to blade and slowly pull the thread. Pressure of blade unravels and "frays" ends of thread, angle of blade reduces danger of cutting.



- 3 Too much pressure on blade will cut thread. Apply only enough to scrape and pull the fibers loose. Repeat operation with more pressure near end of thread.

PREPARING THE THREAD - Continued



WAX ENDS
TO FINE
POINTS

TIE A SIMPLE
OVERHAND KNOT
IN THE CENTER
OF THE THREAD.
THE PURPOSE
IS TO QUICKLY
CENTER THREAD
WHEN SEWING

4 Snapping and pulling the fibers in this manner tapers the tiny snags to fine, pointed ends. Repeat the operation until the snags appear silky, and evenly tapered. Repeat operation on other end of thread.

5 Place the thread over a hook or smooth, rounded object and rub briskly with bees wax. Wax ends thoroughly to fine points. Waxing the thread lengthens its life and prevents fraying while sewing.

HOW TO THREAD THE NEEDLES

A

Push end of thread through needle eye... about 1/2".

B

Pierce thread with needle point as shown.

C

Push thread up on needle, to eye.

D

Pull end of thread through eye as far as it will go.

E

Hold needle and pull thread over eye to lock end of thread.

F

Wax end to "fuse" threads together. Repeat operation with other thread and needle.

THREAD IS READY FOR SEWING

PREPARING THE LEATHER FOR SEWING

To begin . . . we will take two pieces of scrap leather of any size or thickness . . . so you can practice hand sewing, 4 oz. to 6 oz. leather would be preferable as it will be easier to pierce with the awl. Cut leathers any size desired.

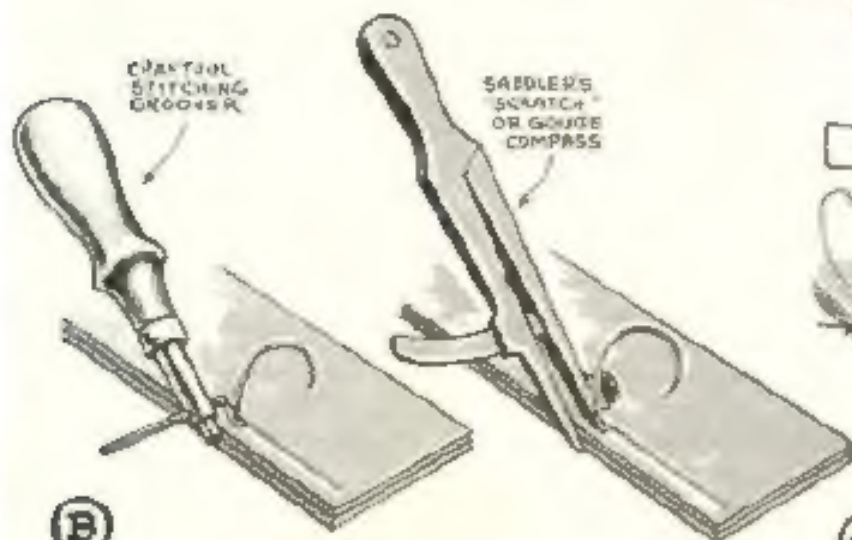
FLESH SIDES TOGETHER



(A) Use rubber cement and adhere the two pieces together. Trim the edges of both pieces . . . so that the edges are flush.

CHARTER
STITCHING
GROOVER

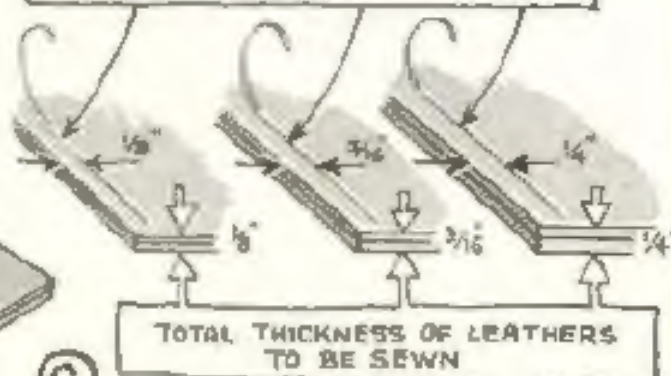
SADDLER'S
SCATCH
OR GOUGE
COMPASS



(B)

Use the gouging tool of your choice and gouge a channel around the edges of the leather. Gouge the leathers on both sides. Keep tool right against leather edges to insure a uniform gouge along the edge.

GOUGING DISTANCE FROM EDGE

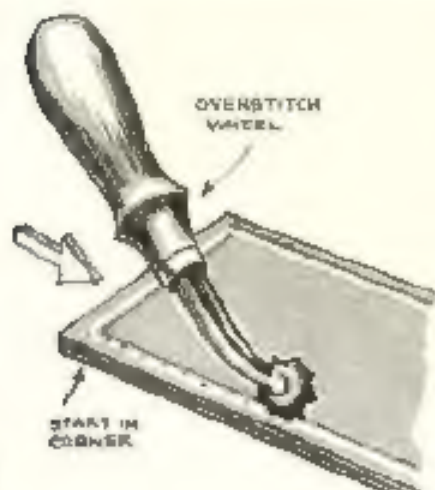


(C)

In determining "How far" from the edge to gouge stitching channel, a good rule-of-thumb to follow, is to make the gouge about the same distance from the edge as is the total thickness of the leathers to be sewn. (See above.)

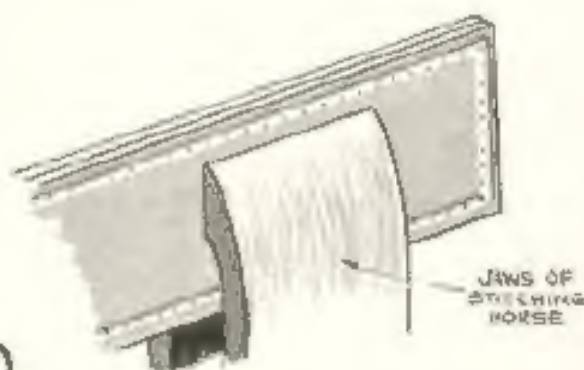
OVERSTITCH
WHEEL

START IN
CORNER



(D)

Moisten the gouged channels lightly with a damp sponge, and run the overstretch wheel all around the channel . . . on the front side only. This marks position of awl holes to insure even stitches.



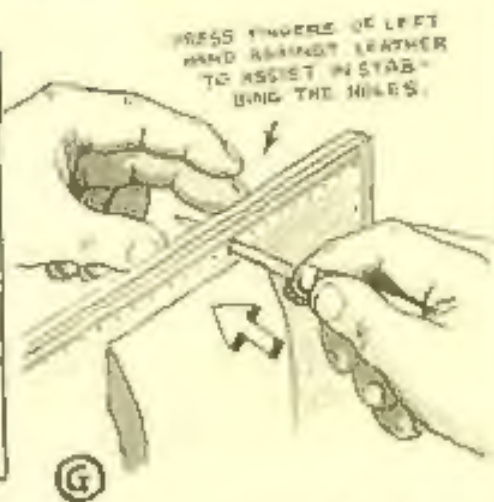
(E)

Clamp leathers in stitching horse close to channel, as shown . . . an inch or so from the corner. Note . . . we are not starting in the corner . . . because of instruction clarification (in later steps) on how to end stitching and begin with knotted threads, etc.

STABBING WITH THE AWL



Hold the awl in hand as shown above. End of awl handle should press against heel of hand. If awl handle feels too long, cut off some of the end.



The purpose of the awl is to pierce a hole through the leathers to allow entrance of the needles. See the illustrations at right for correct angle of awl blade. Stab first hole at far end of stitching jaw, as shown.

STABBING THE AWL HOLES

RIGHT ✨

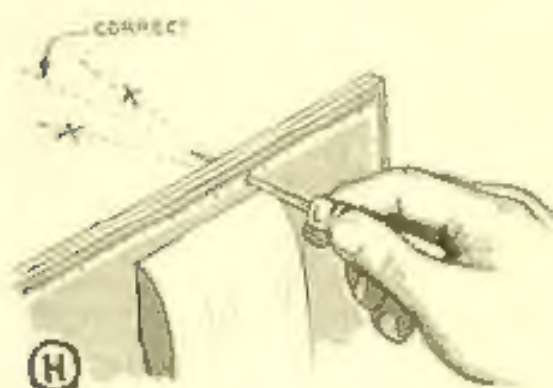
THIS IS THE CORRECT ANGLE TO HOLD THE AWL BLADE WITHIN THE CHANNEL. KEEP THEM UNIFORM.

WRONG ✨

AWL PIERCES OUTSIDE CHANNEL. HOLES AT DIFFERENT ANGLES. STITCHES WILL BE UNEVEN.

WRONG ✨

HOLES NOT ANGLED. THREAD MAY TEAR THROUGH HOLES IN THIS POSITION.



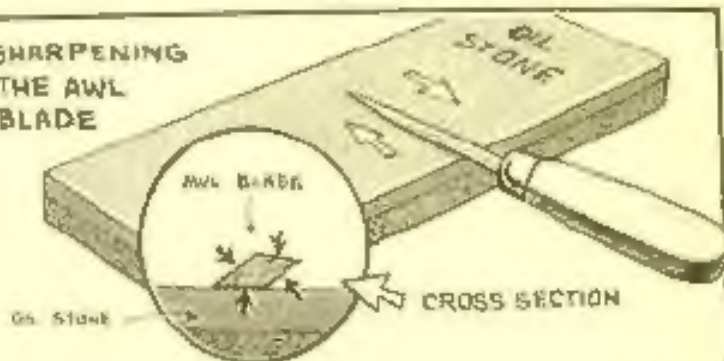
When stabbing the awl holes, always hold the awl at the same angle (right angle to leather) so that all stitches will be uniform. Practice insures uniformity.

The smallest hole, possible, for needle clearance is most desirable. You will notice, after piercing the leather with the awl, that it will "stick" or "grab" when trying to withdraw. It is generally necessary to twist it either to right or left to loosen its grip in the leather ... for easy removal.

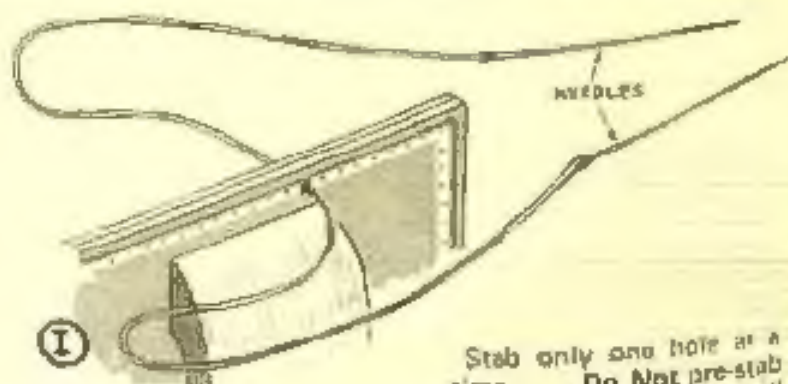
Do not wriggle it back and forth ... boring a big gaping hole. This makes a larger hole than necessary, makes bad appearing stitches.

The awl (on back side) should come out in the gouged channel. It will not take much practice to stab the holes properly.

SHARPENING THE AWL BLADE



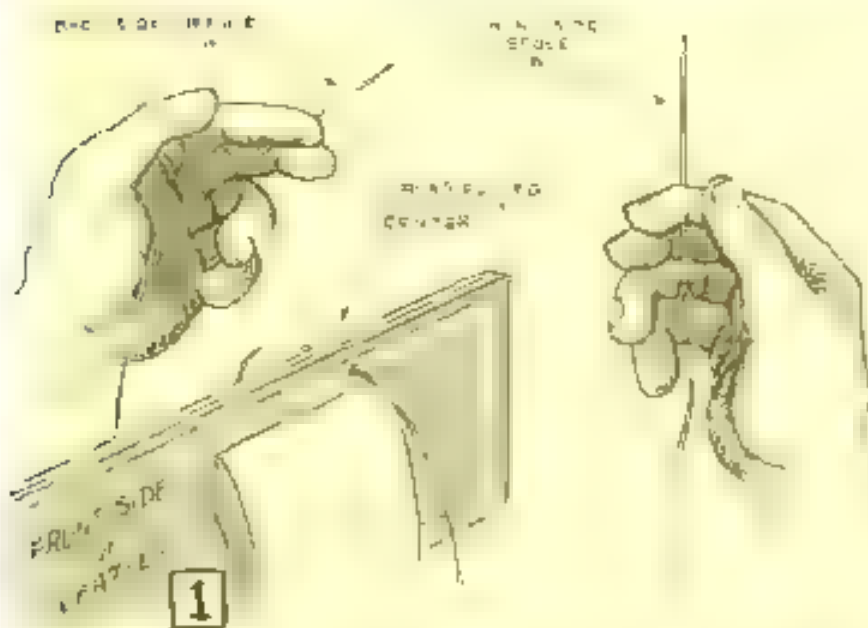
If the awl blade does not penetrate the leather easily, it probably needs sharpening. Sharpen by rubbing the four flat surfaces (indicated by arrows in cross section) on an oil stone. Hold firmly against oiled stone; work back and forth. Strip on a rough board to polish the surfaces. A sharp awl is a "must" for easy sewing.



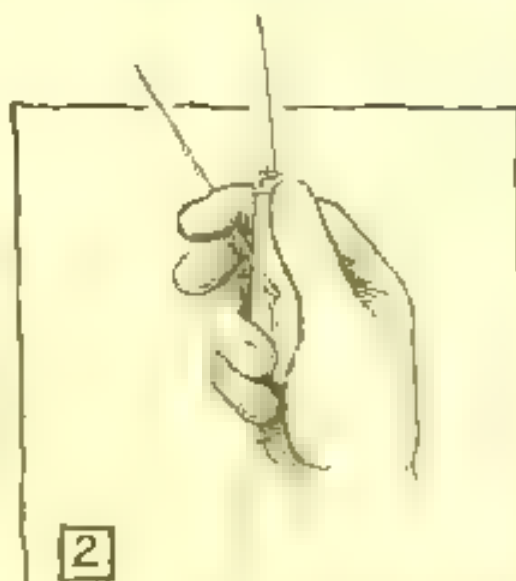
I

Stab only one hole at a time ... Do Not pre-stab extra holes ... they will close up; have to be re-opened, causing extra work and time. Push one needle through hole and pull knot (in thread) to the center of the leathers. The threads are now equal on both ends. You are ready to sew.

HOW TO HOLD THE NEEDLES AND THE AWL



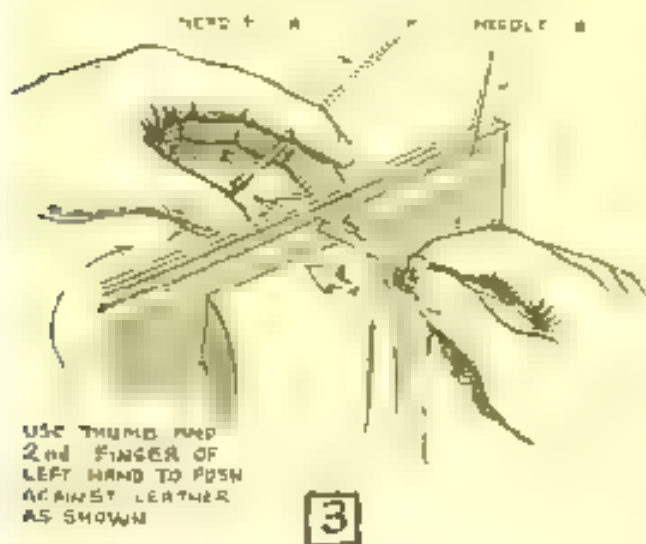
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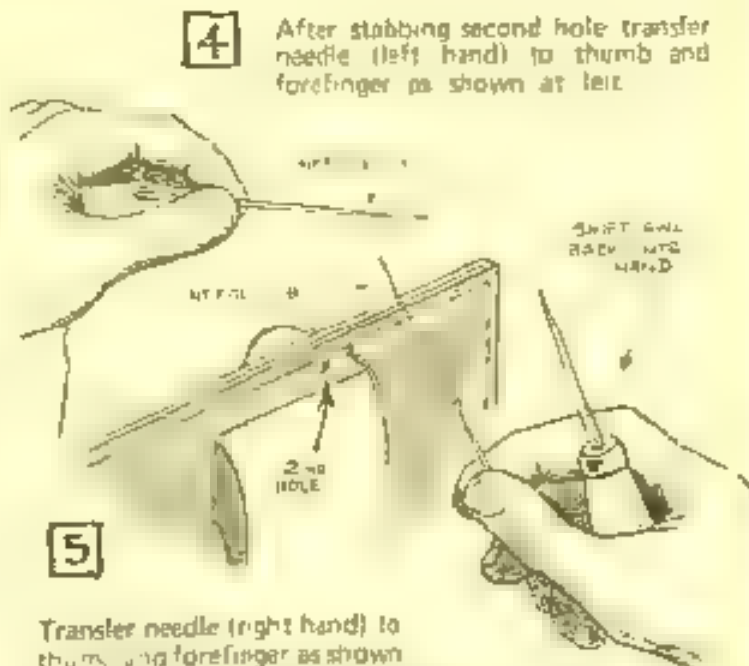
Now place awl in right hand as
 2. in Hold with thumb close the
 get a new hole in leather
 be worn into 5 as illustrated

DO NOT WHILE SEWING LAY DOWN THE NEEDLES OR THE AWL At first I will be
and uncomfortable for a long while. The reason for this is that I am not used to holding a needle in my
hand! So I will take a few days to get used to it and I will be better for my future work and sewing
properly, easily and comfortably.

KEEP NEEDLES BETWEEN FINGERS

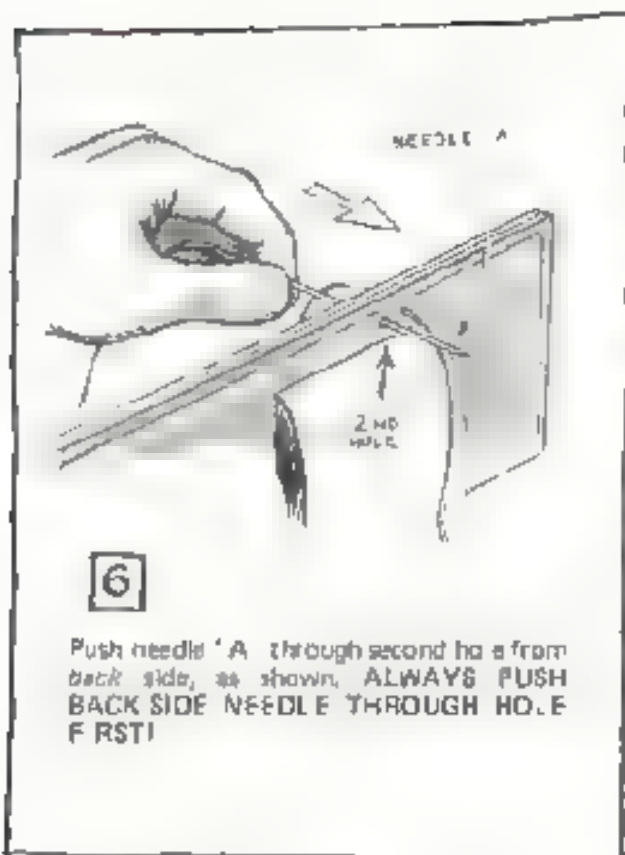


Turn hand and stab second hole with awl as shown above. Be sure to stab proper angle with the awl blade. Use left hand to assist. *Do not lay the needles down*

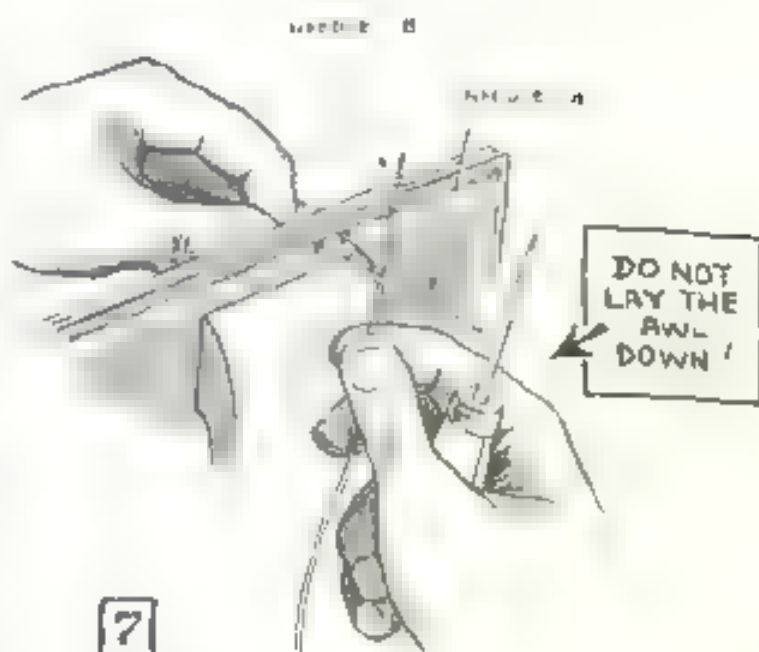


Transfer needle (right hand) to thumb and forefinger as shown
KEEP AWL IN HAND DO NOT
LAY IT DOWN! (a) thumb must move
 -curved needle and/or awl by rest without the aid of
 the other hand.

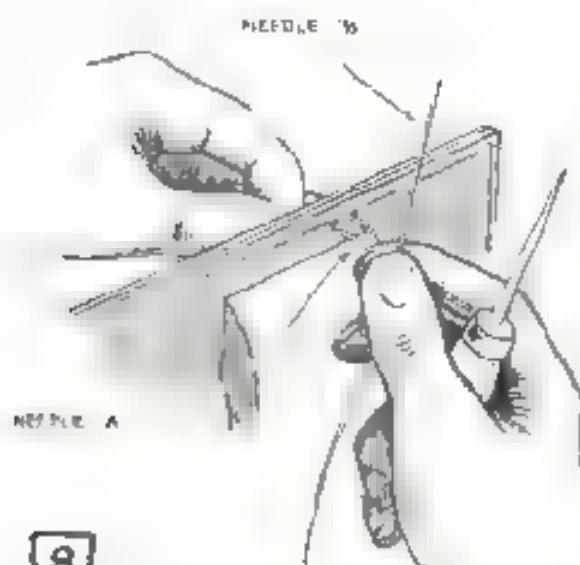
SEWING THE LEATHER



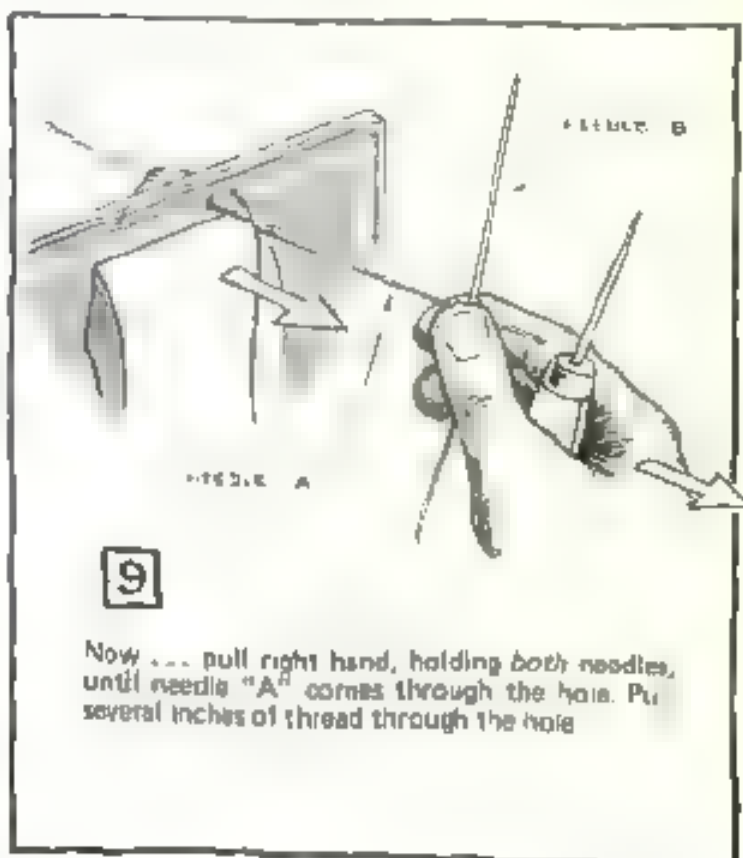
Push needle 'A' through second hole from back side, as shown. **ALWAYS PUSH BACK SIDE NEEDLE THROUGH HOLE FIRST!**



Place right hand needle 'B' ... *under* needle 'A' ... as shown above.

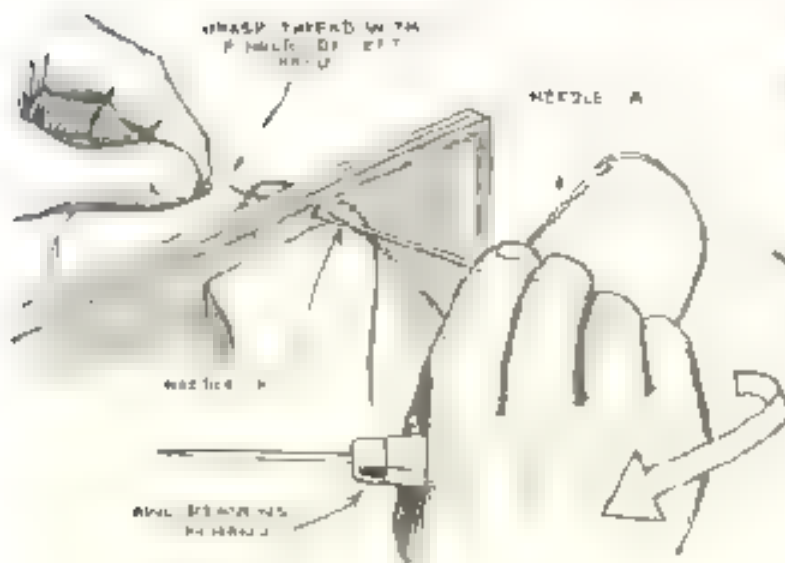


Move right hand up ... so that fingers can grasp needle 'A'. Needle 'B' must still remain under needle 'A'.



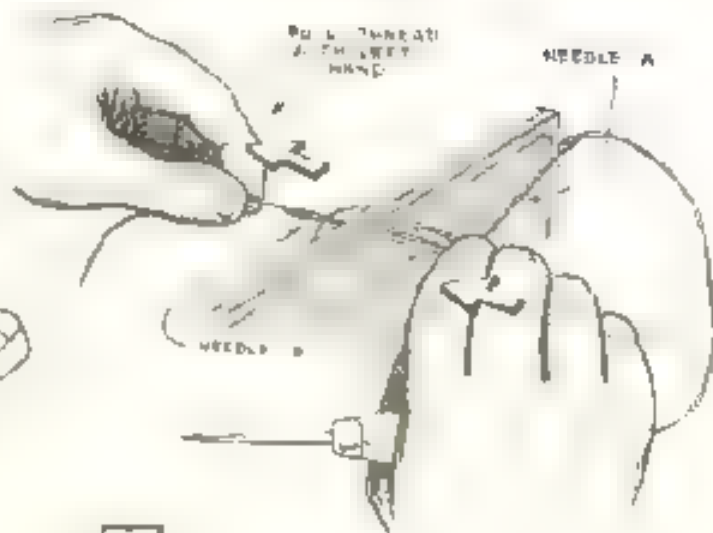
Now ... pull right hand, holding both needles, until needle 'A' comes through the hole. Pull several inches of thread through the hole.

CONTINUE WITH THE SEWING



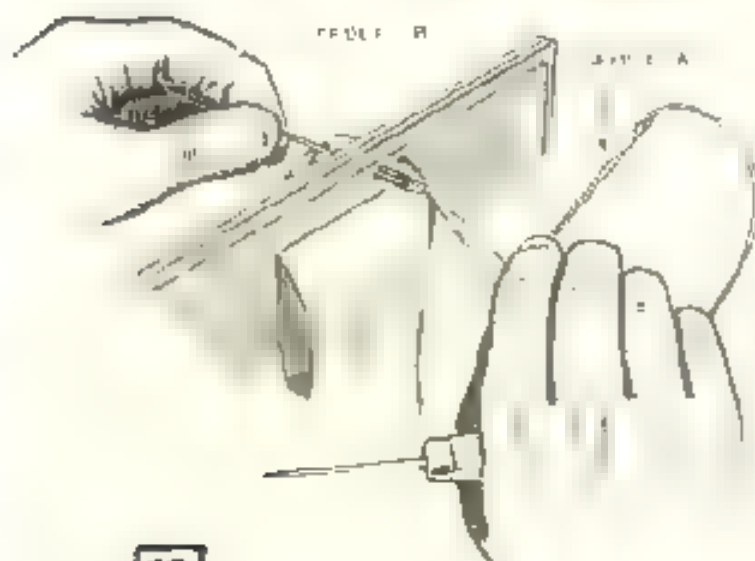
10

Turn right hand over and insert needle "B" in hole next to thread of needle "A". That is coming through. Grasp the thread on back side with left hand. ALWAYS PUSH RIGHT HAND NEEDLE THROUGH HOLE ON SAME SIDE OF THREAD!



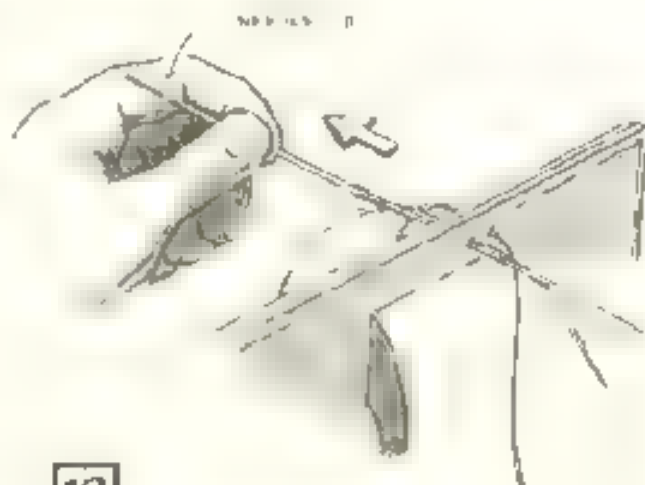
11

As you push needle "B" through hole simultaneously pull thread with left hand! This insures that the point of the needle will not penetrate the strands of the thread. If needle goes through any thread strands, it will have to be removed ... or a proper stitch cannot be completed. (See page 20 for pierced threads.)



12

After right hand pushes needle almost through drop thread with left hand and grasp needle "B" as shown. Right hand continues to hold needle "A" in fingers.

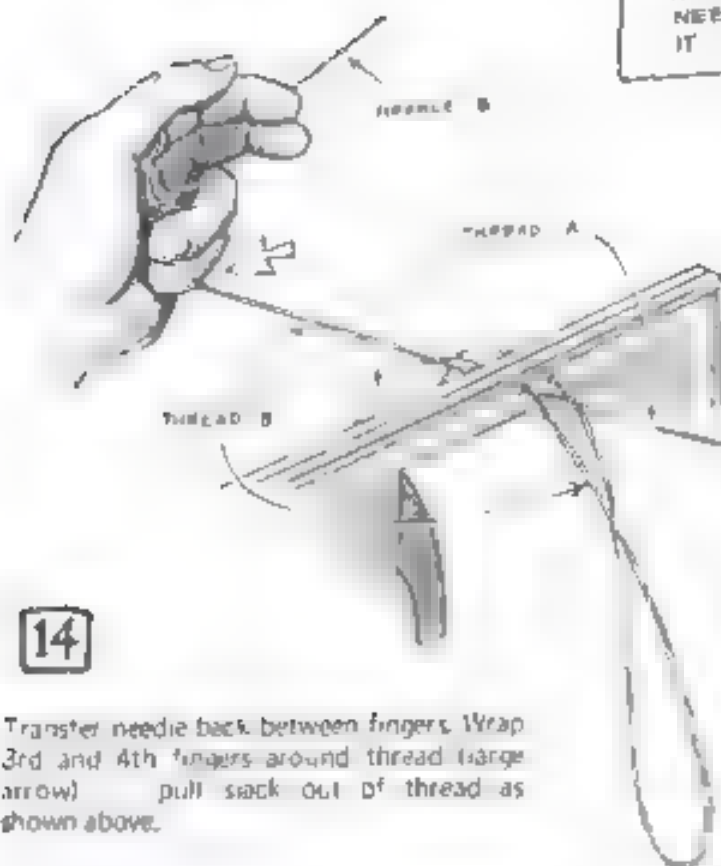


13

Now continue pulling needle "B" through and pull several inches of thread through the hole.

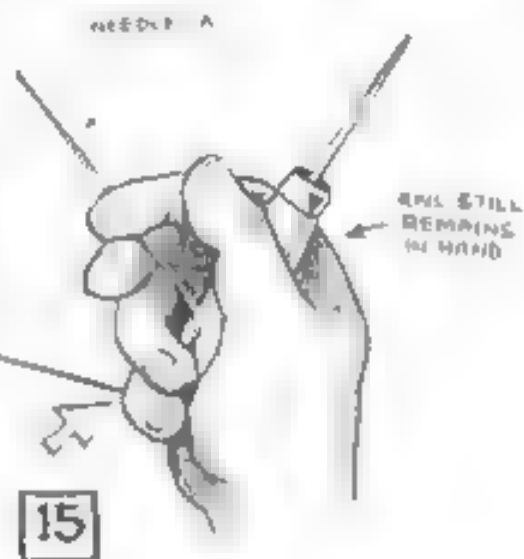
CONTINUE WITH THE SEWING

AFTER A LITTLE PRACTICE MANIPULATING NEEDLES AND AWL, WITH EACH HAND IT WILL BECOME EASY TO DO



14

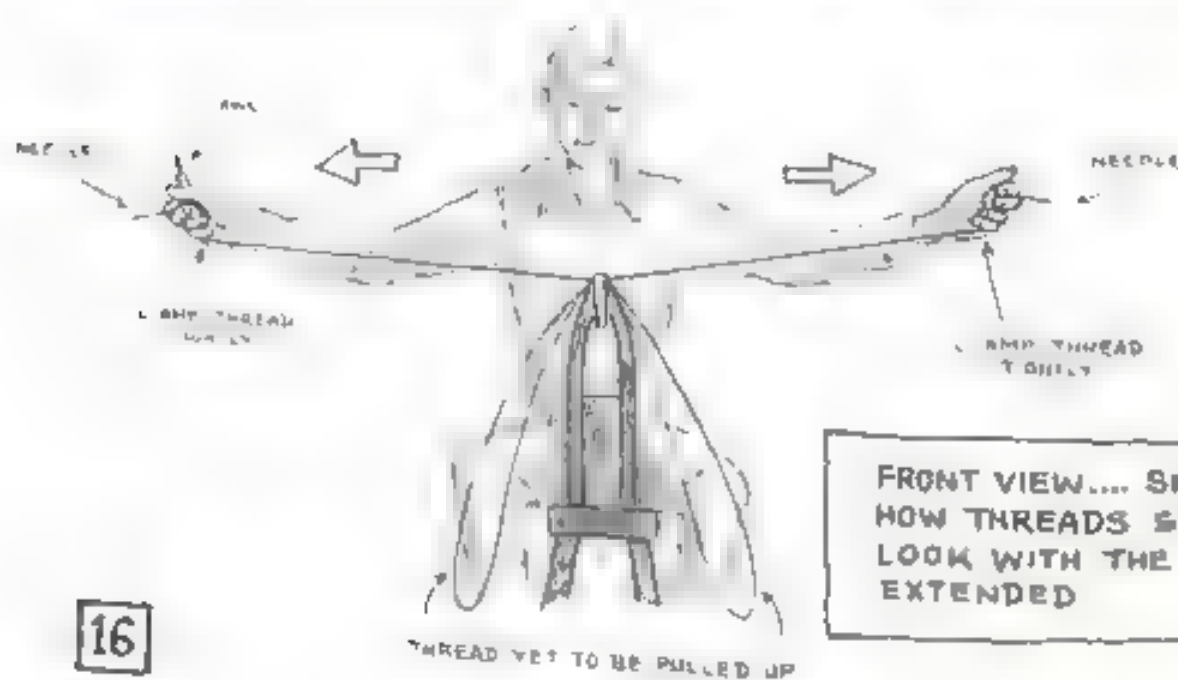
Transfer needle back between fingers. Wrap 3rd and 4th fingers around thread (large arrow) pull slack out of thread as shown above.



15

Simultaneously transfer right hand needle back between fingers. Wrap little finger around thread (large arrow) pull up slack, as shown.

.... YOU ARE NOW READY TO PULL THE FIRST STITCH UP!



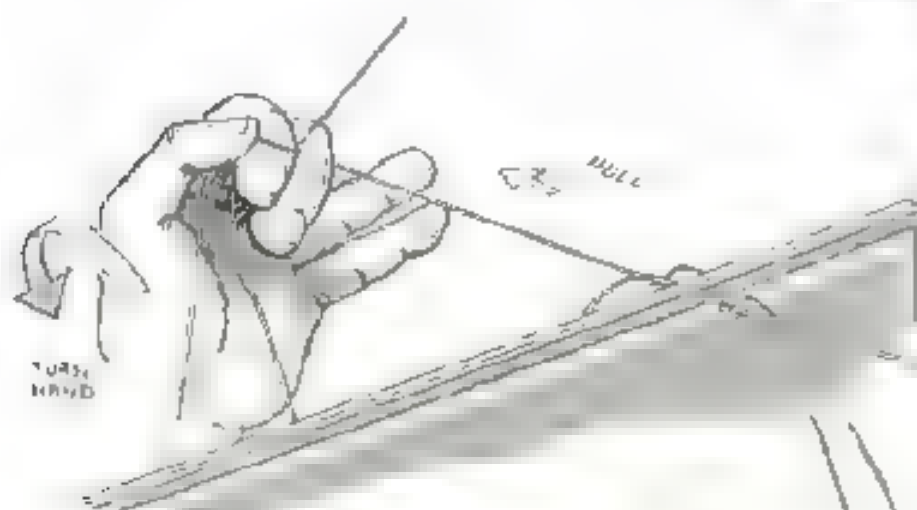
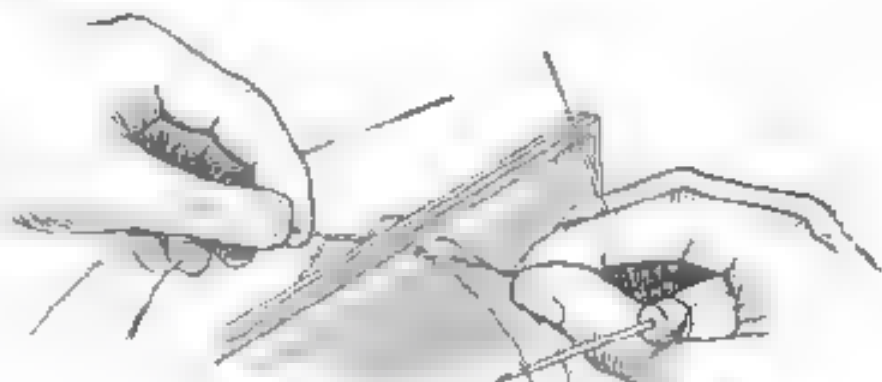
16

Now ... pull arms out to full length to take up the slack in the thread. This will take up about half of the total thread length. Pull arms generally straight out from the project as shown. This makes for easier sewing and has less wear and friction on the thread being pulled through the holes.

CONTINUE WITH THE SEWING

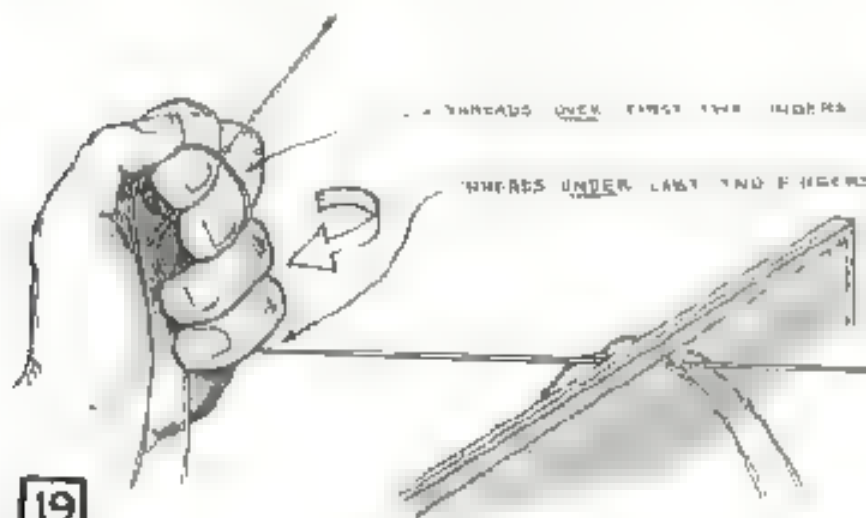
17

After pulling threads (as in step 16) move hands back to project. Let threads drop out from under little fingers. Re-grip threads close to leather, as shown. Grasp the same threads you had been previously pulling.



18

Pull on threads ... at the same time turning hands out ward. Extend the little fingers so that the thread comes in front of them. Threads (under thumbs) should go over top of index and second fingers.



19

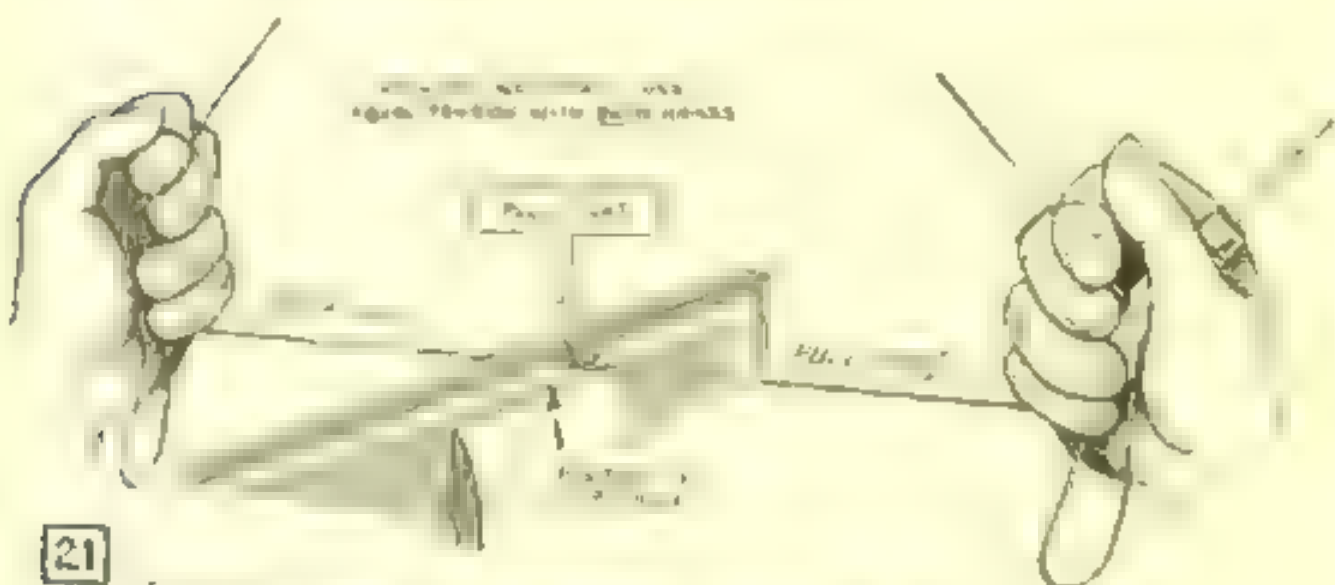
With hands in position (step 18) fold little fingers over thread as shown in illustration above. Hold tightly. This locks threads in fingers. Pull will be against bottom of little fingers and not on the eyes of the needles.

CONTINUE WITH THE SEWING



20

10-11-1964



21

[illegible]

[22]

[illegible]

23

SPECIAL NOTE

When pulling needle through hole always pull
 1. on ~~the~~ end of thread or needle. A. This will
 make uniform drawing stitches.

CONTINUE WITH THE SEWING

1. FOLDING
2. HAND STITCHES
3. FINISHING



24

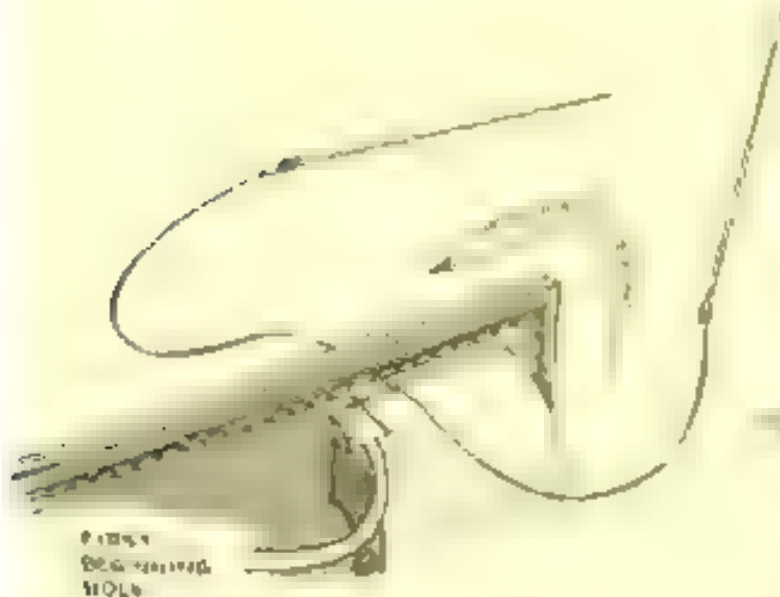
When you have sewn up one side of a piece of fabric, you have sewn up the other side. The same is true when you are always sewing around the edge. The position of the needle while stitching the inside is not the same as the position for a "guide" for stitching the outside. The needle is at a new position when it is sewn into the fabric.

1. FOLDING
2. HAND STITCHES
3. FINISHING



25

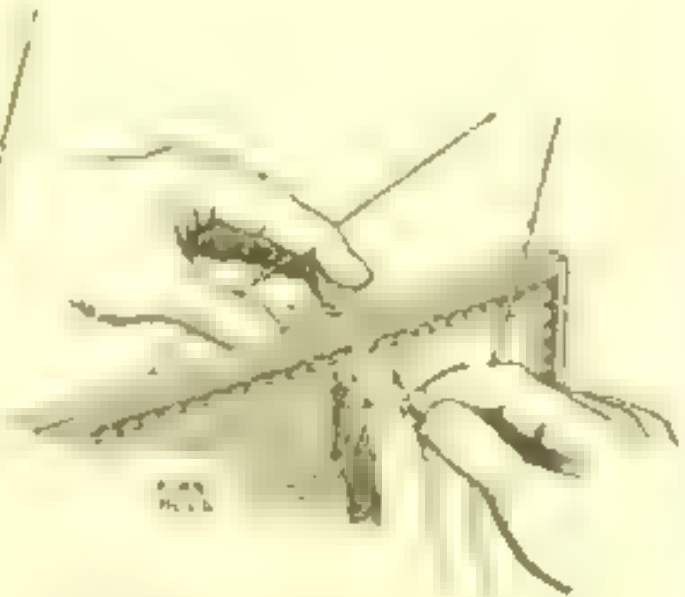
When you are stitching a piece of fabric, you are stitching around the edge. The position of the needle while stitching the inside is not the same as the position for a "guide" for stitching the outside. The needle is at a new position when it is sewn into the fabric.



1. FOLDING
2. HAND STITCHES
3. FINISHING

26

Continue sewing completely around the project until you are one stitch away from the beginning hole. Leave project in stitching loop so you are always above the pins.



27

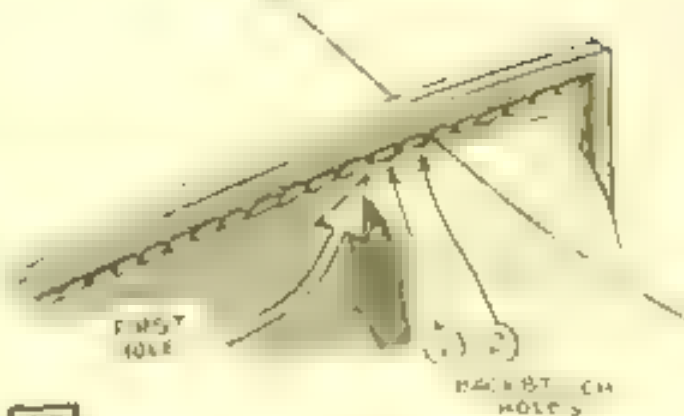
Carefully work needle into first hole so as not to cut the thread. After you have had some experience with it, be able to "turn" with the needle without cutting thread.

CONTINUE WITH THE SEWING



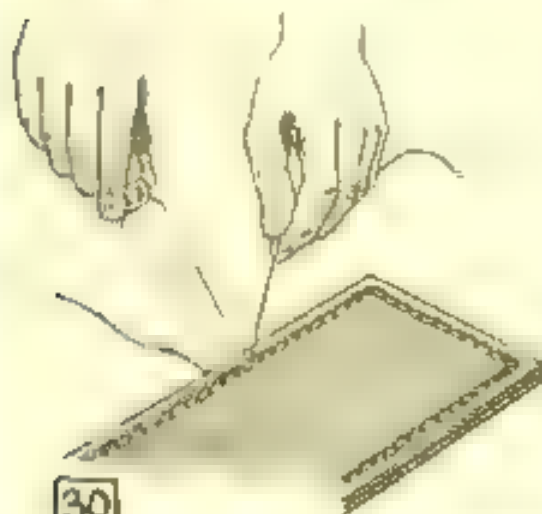
28

Insert needles as previously instructed and pull the stitch tight.



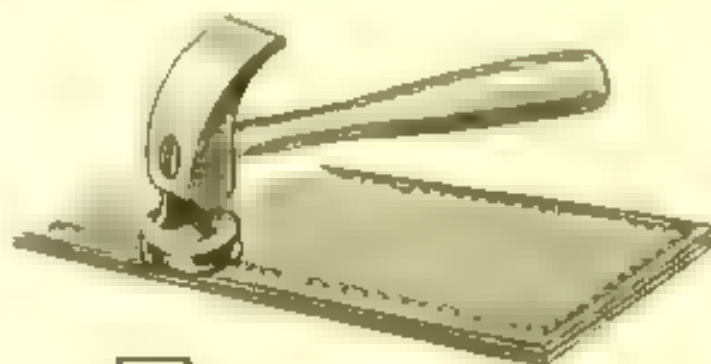
29

To complete the stitching backstitch two holes and a row. Evenly space the backstitch holes with theawl to insert needles. Pull the threads tight with each stitch.



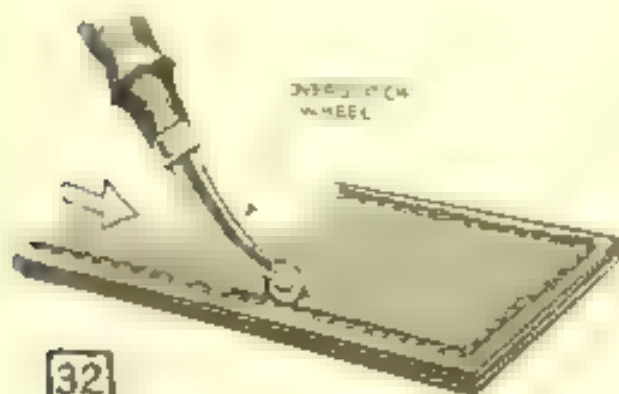
30

Take project out of stitching horse. Cut threads off in stitching channel on both sides. Use a sharp knife. Sewing is completed.



31

Lay on bench and 'tap' over all stitching with a smooth faced hammer.



32

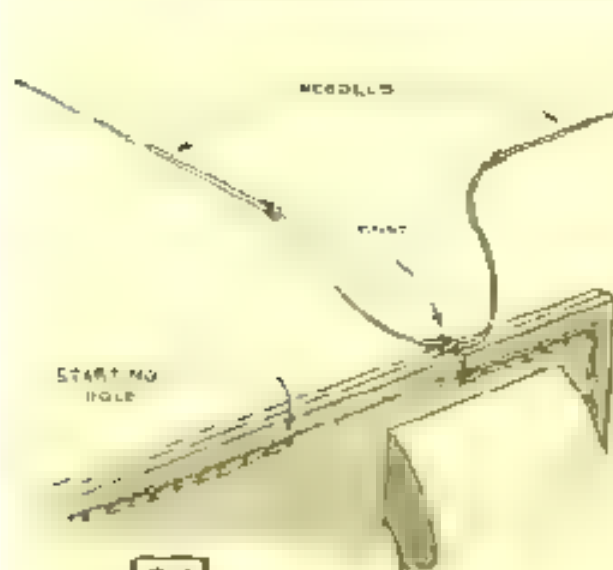
Roll the overstretch wheel over all of the stitches. This adds the final touch of professionalism; it actually helps the appearance of any slightly irregular stitches.



33

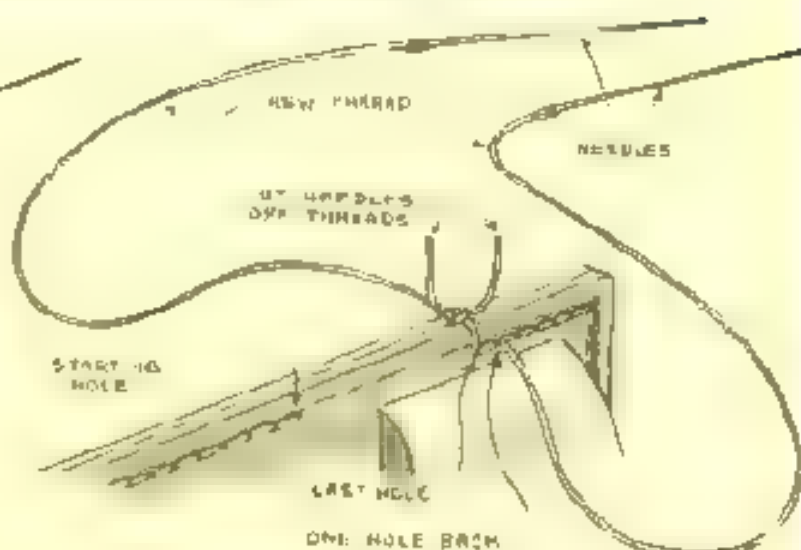
The final step on the sewn project round the edges on both sides as shown above. Moisten edges and burnish with a cloth, or an edge slicker.

CONTINUE SEWING...RUNNING OUT OF THREAD



34

If you are sewing and use up a full length of thread (with only a few inches left, and have not reached the starting hole... pull last stitch tight and tie threads together on top of the edge, as shown above. Any kind of a double knot will do.



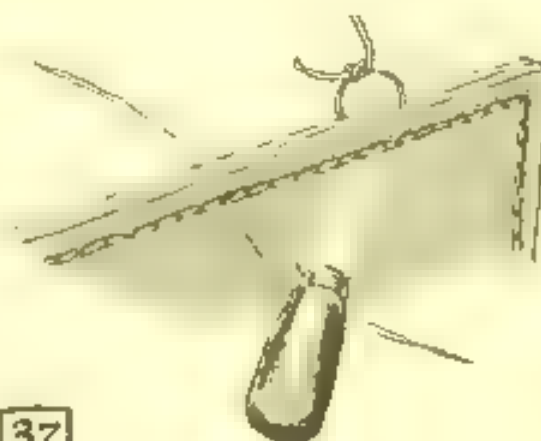
35

Cut needles off threads. Prepare a new thread (page 5) insert awl... one hole back from last stitch and push needle through. Put thread to center as in step 1 or page 9. When starting a new thread, it is permissible to push first needle through from front side. Beginning one hole back... "locks" the last hole threads in place.



36

Continue sewing to starting hole as previously described. Keep sewing area above jaws. Backstitch two holes... as in step 29.



37

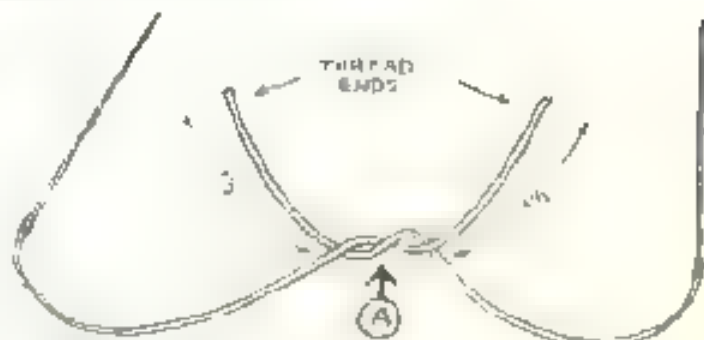
Cut off the threads as described in step 30. Do not cut into the stitched threads. With sewing completed, follow through steps 31, 32, 33.

TYING THE THREAD ENDS TOGETHER



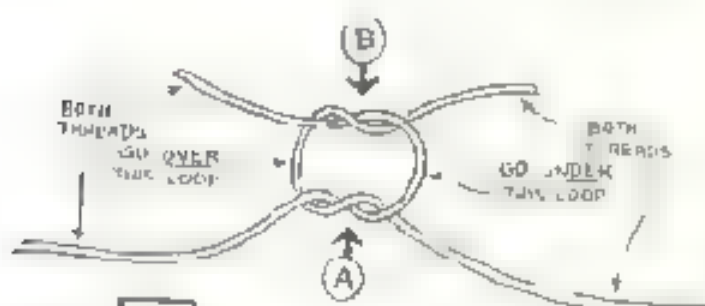
38

Now from step 30 you have a length of thread on each needle. To use this thread in additional sewing, the ends will have to be tied together.



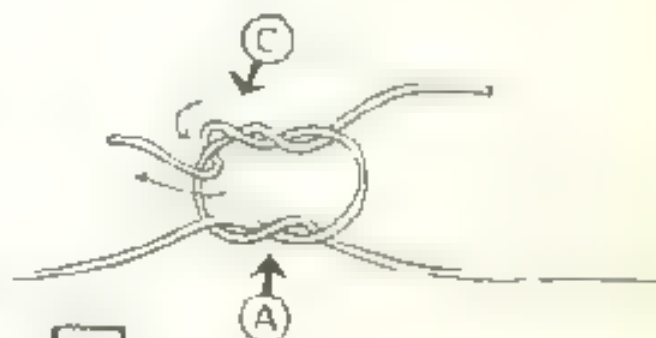
39

Since the thread is waxed, the whatever string will not hold. Begin by tying a simple overhand knot as shown above. A) Leave about 1" of ends.



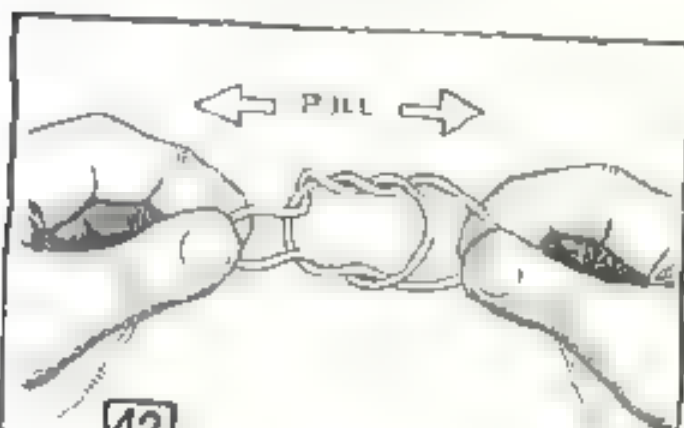
40

Next ... form a loose "square" knot with the ends (B) as shown above.



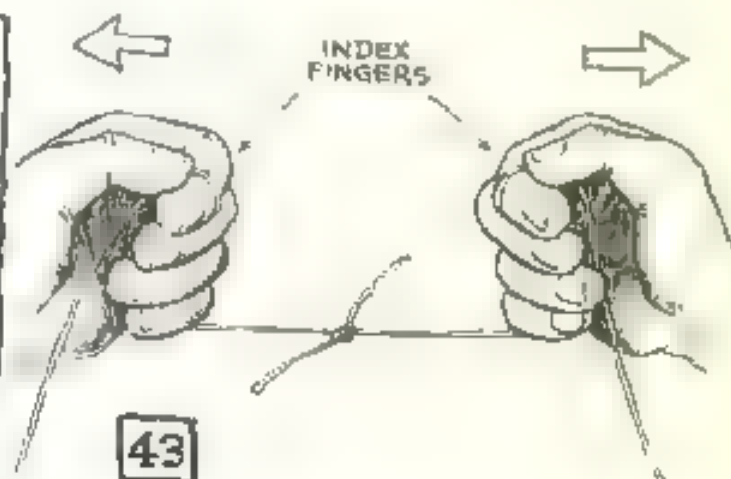
41

Take one extra twist (C) around the thread ... as shown above.



42

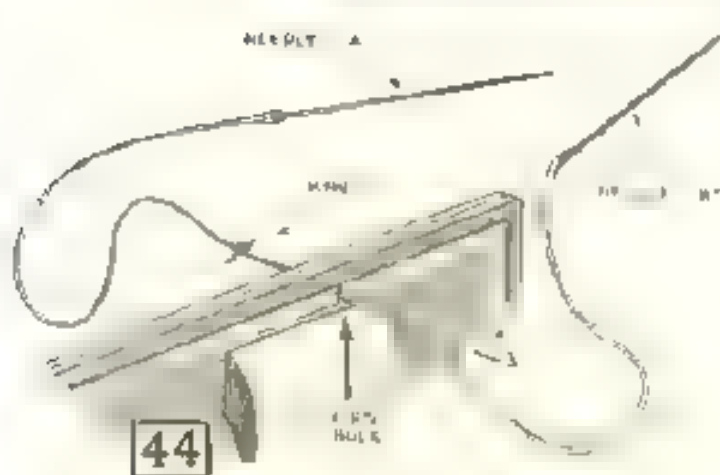
Now ... grasp both threads ... on each side as shown above. Pull as tight as possible with the fingers.



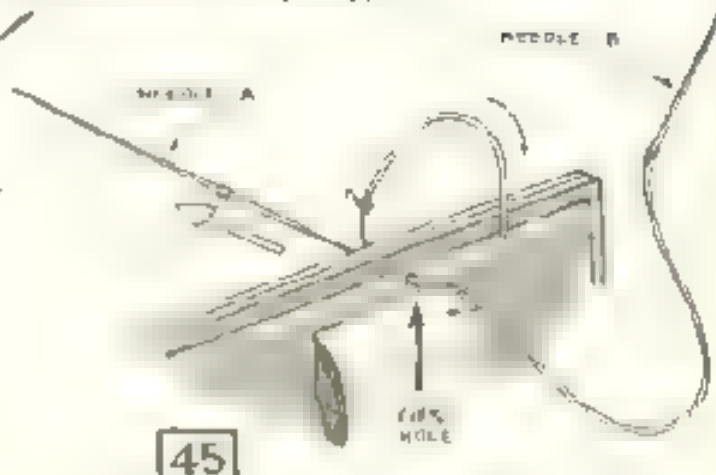
43

Loop threads around index fingers, as shown, and pull knot down as tight as possible. Cut thread ends off close to knot.

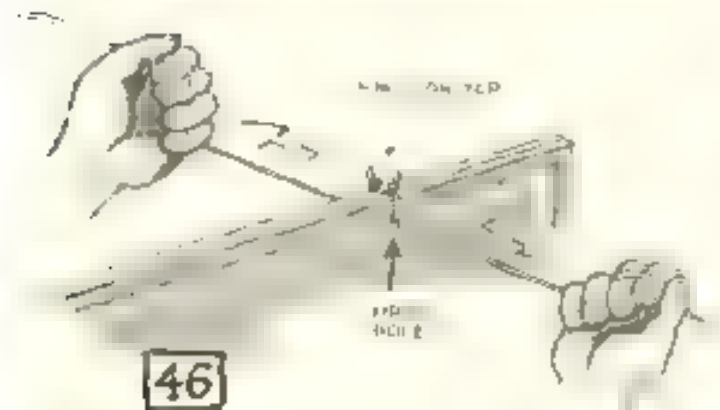
BEGINNING WITH A KNOTTED THREAD



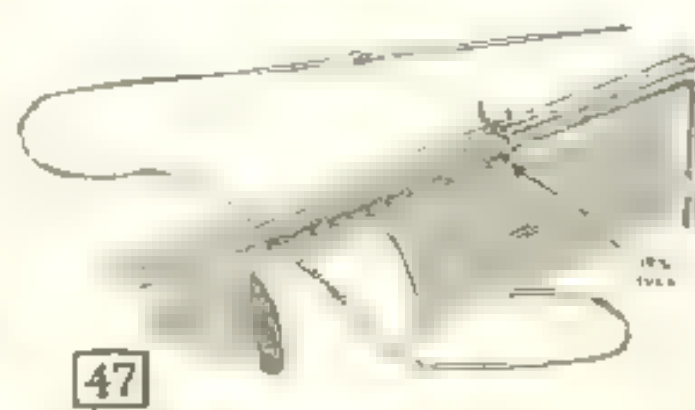
Take needle A through hole and pull thread through from back side of hole to front. Either side will do.



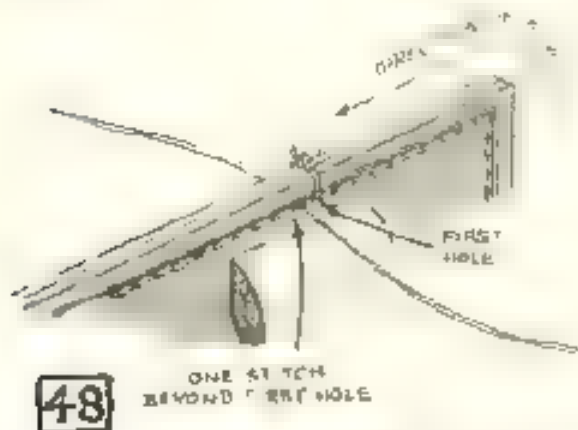
Take needle A through hole and pull thread through from back side of hole to front. Either side will do.



Adjust threads so they are tight. Pull threads tight.



Continue sewing. Make sure you are always sewing in the same direction of thread before completing row or row. See step 34. Make a new thread and continue sewing as in step 35.

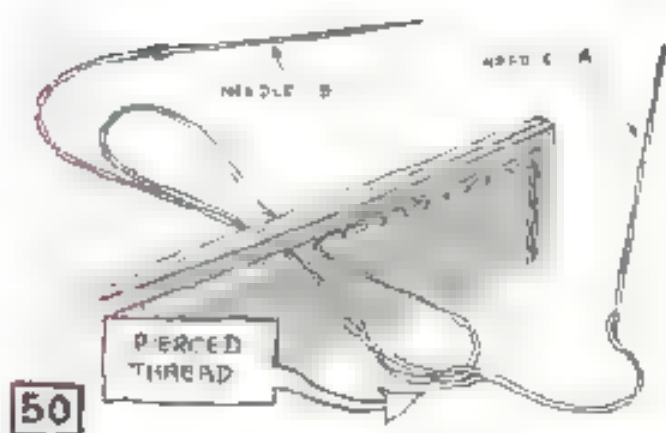


Sew around project through first hole. Then take one extra stitch beyond first hole as shown. Pull tight. This locks ends of knotted thread.



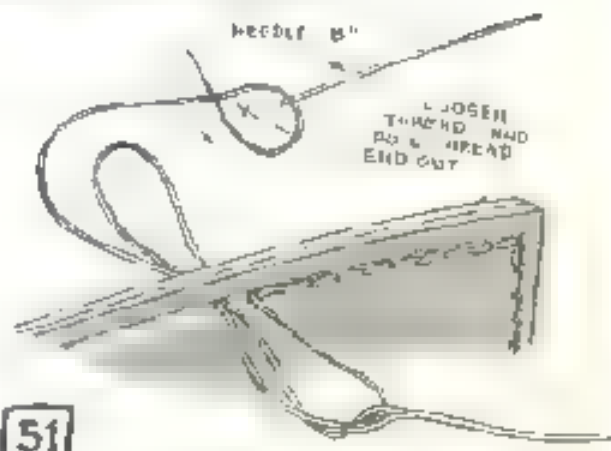
Now backstitch two holes... same as step 29. Cut off the threads as previously described.

TROUBLE SHOOTING — PIERCING THE THREAD



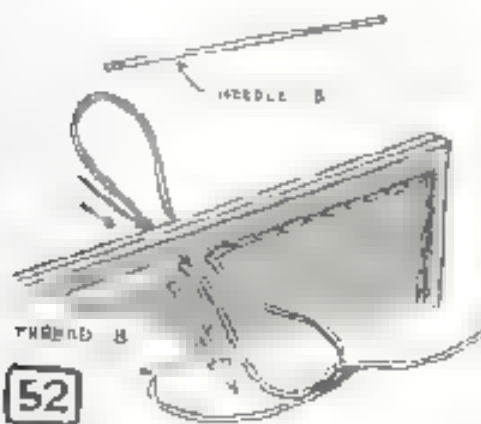
50

The most experienced sewers will sometimes pierce a thread. When this happens, the stitch will be smaller than the ones above. Needle B has pierced thread of needle A. You cannot continue sewing.



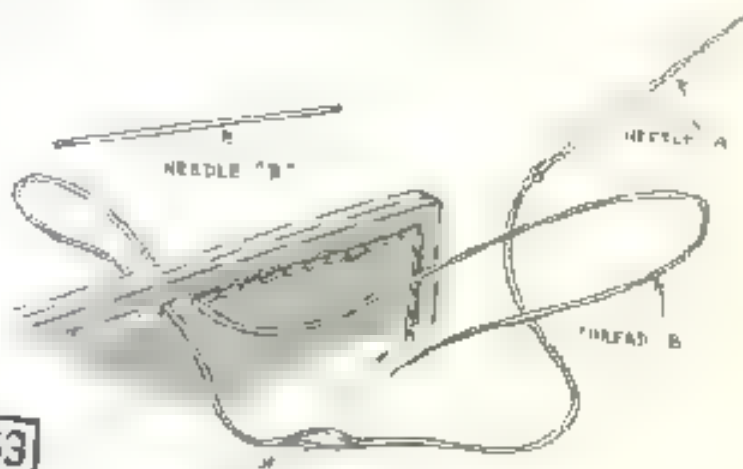
51

To correct the situation, separate tapered end of thread of needle B and pull end out of thread. Remove the needle.



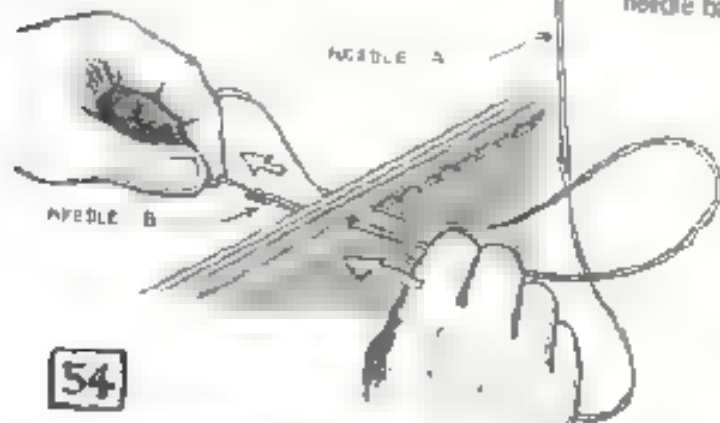
52

Pull thread from needle "B" back out of hole.



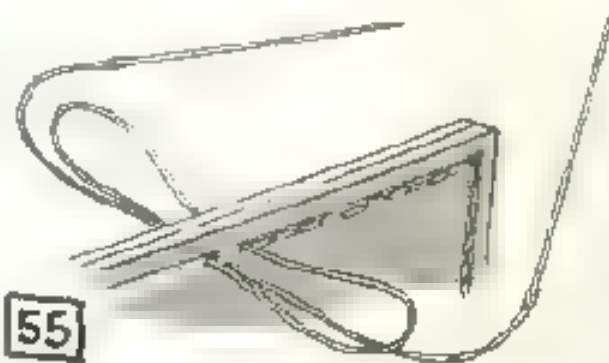
53

Pull thread "B" out of pierced thread, as shown. Rewax pierced thread and end of thread from needle B. Put needle back on thread, as shown on page 6.



54

Push needle B back through hole. Simultaneously pull on thread with left hand, as shown. Use same procedure as steps 11, 12, 13.



55

Project should now be back to normal appearing as above. Continue sewing as in step 14.

TROUBLE SHOOTING — BROKEN THREAD

BROKEN
THREAD

56

Once in a while for various reasons the thread will break when pulling a stitch tight. Don't worry.

BROKEN
THREAD

CUT OFF
THREAD

57

Cut off the unbroken thread about the same distance from the leather as the broken thread.

STYLUS END
MODELING TOOL

58

With the stylus end of your modeling tool, pull the loose ends of the threads out of the holes ... until you have about 3" of loose ends on each side.

POINT

NEW
THREAD

ONE HOLE
BACK

59

Tie the ends on top edge as shown. Make a new thread. Pull to center, one hole back, form knotted ends. Continue sewing as in step 35.

SPECIAL NOTES

SORE
FINGERS

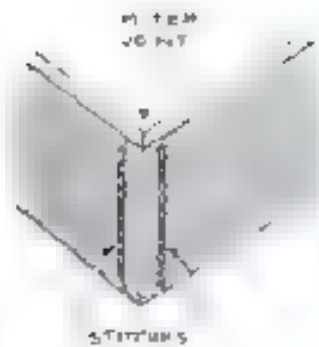
BROKEN
THREAD

AT NEEDLE EYE

If you have followed the instructions by now the outside of your tie fingers will be sore from pulling on the threads. Continued sewing will build up callouses. However you can use tape, band-aids, or make a leather finger stall if desired, to aid this problem.

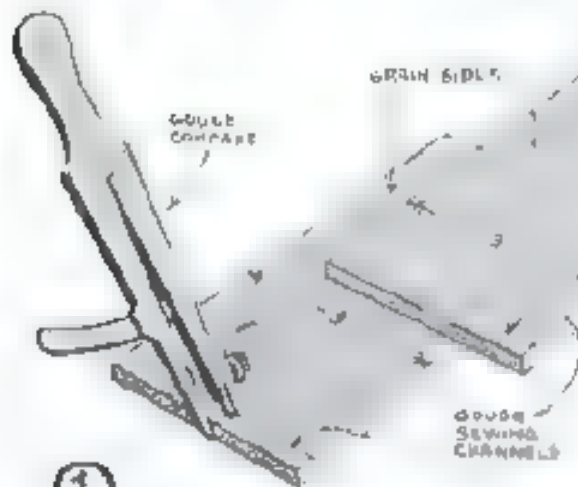
On occasion the thread will break at the needle eye. It is difficult to taper the end of a waxed thread. Pull the fibers apart with fingers and scrape as much beeswax off as possible. Follow steps 1-2-3-4 on pages 5 and 6. Re-wax put back on needle.

SEWING A MITER JOINT



This method of sewing is used to secure two pieces of leather together where they join at a 90° angle. It is used on leather book covers or any specialized project where two such leathers join. The leathers to be joined must be beveled at 45° angles.

For instructional purposes we will make a single miter joint using two pieces of 8'4 leather. We cut them about 3" wide and 4' long ... or any length for that matter whatever strips you have available.

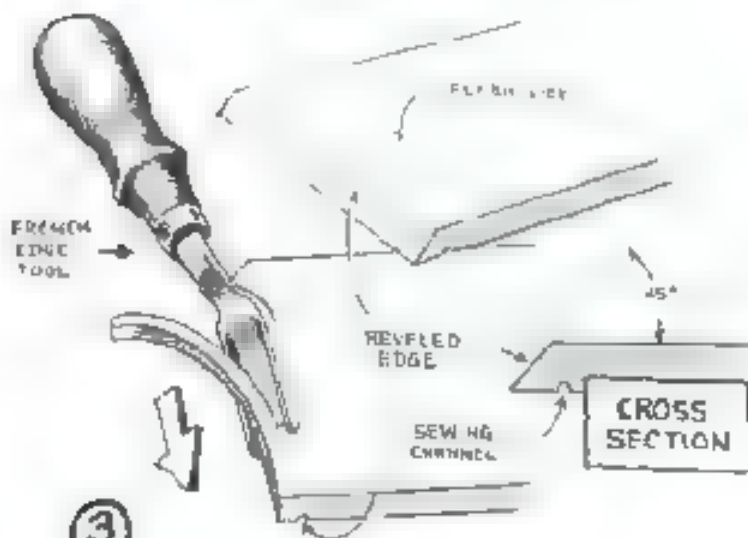
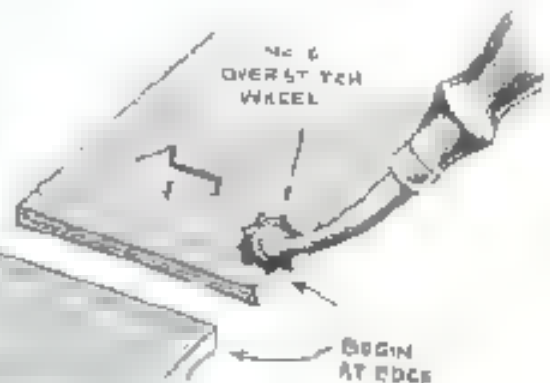


①

On the leather pieces, Gauge a sewing channel along the edge of each piece - that is to be joined. Page 7, step "C", shows correct distance from edge for channel.

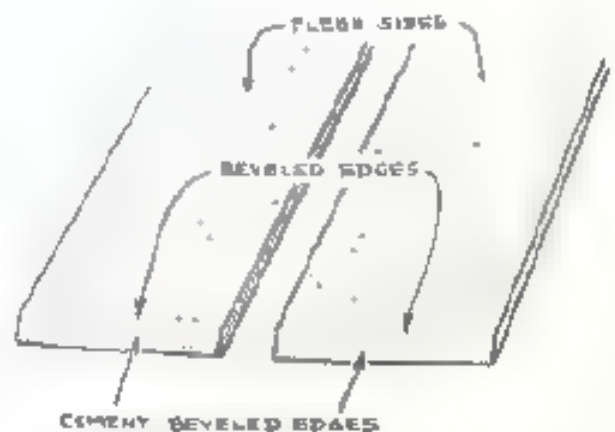
②

Begin with overstretch wheel, as shown, one space from the edge. Lay ends ... to be joined ... together as shown. Mark both ends exactly the same. If wheel marks do not line up to opposite edge you may have to "adjust" the last two or three marks to equalize the sewing. Last mark should not be right on the edge.



③

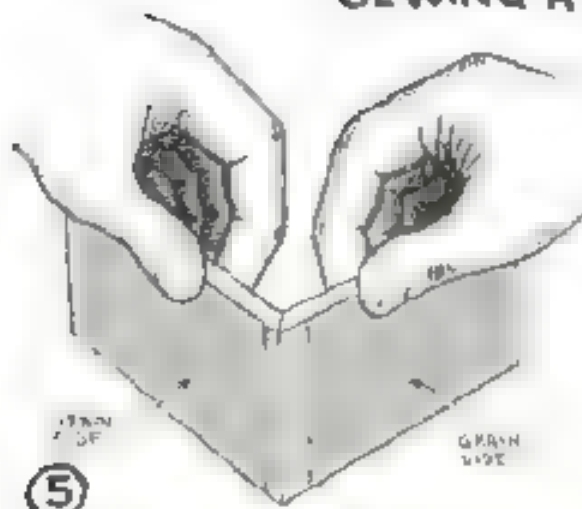
Turn leathers flesh side up and bevel the ends at a 45° angle with the French edge tool. Bevel the ends with the sewing channels as shown. Place leathers on a smooth, firm surface try to hold edge at a 45° angle.



④

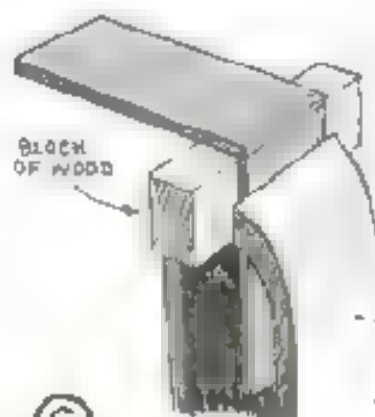
Apply all-purpose cement (strong bonding) to both beveled edges. Allow to "set" some minutes to insure adhesion.

SEWING A MITER JOINT — Continued



5

Stand pieces on edge, on bench, and adhere the beveled edges. Press them firmly together.

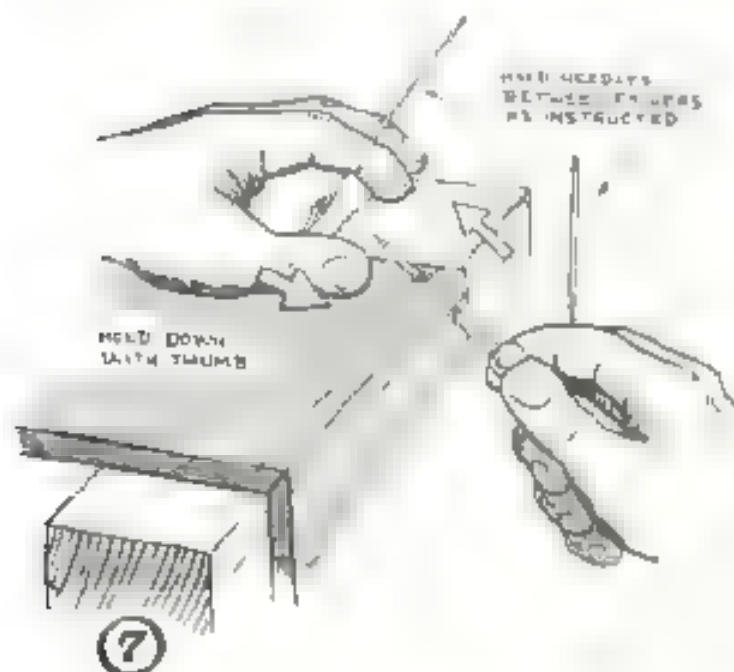


6

Fit a block of wood inside the miter joint . . . and clamp. The block of wood will insure a square corner and aid in the sewing.

OTHER FORMS AND AIDS TO SEWING ARE SHOWN ON PAGES 27-28-30-35

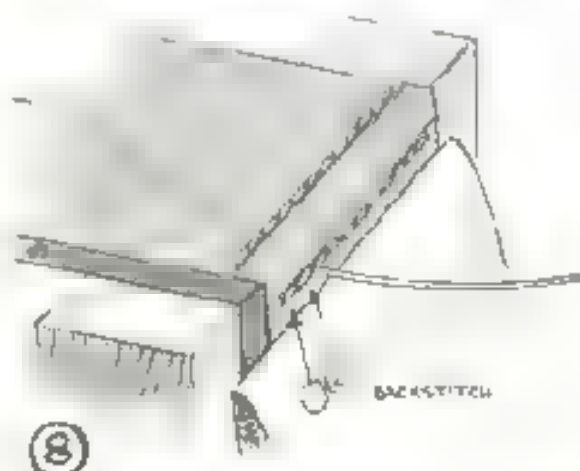
STITCHING HORSE JAWS



7

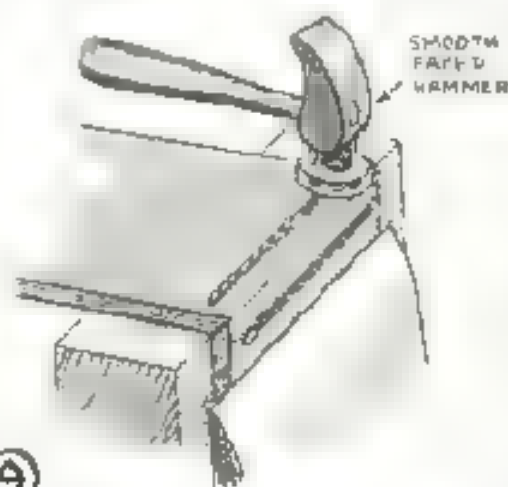
Slab first hole, upwards, at a 45° angle. The awl blade should come out in the opposite channel at the wheel mark. You may have to back the awl off a few times until you get the correct angle. With a little practice you will get the "feel" and will exit in the opposite wheel mark with regularity.

Push one needle through the hole and pull thread to center. Sewing procedures are the same as steps 1 through 28 (pages 9 through 16). Always push the needle through the hole from the left hand first. The only difference here . . . you are sewing at an angle . . . rather than straight across.



8

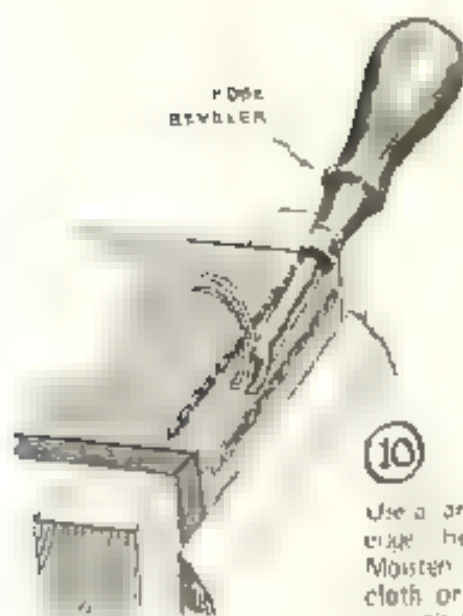
Sew to end . . . and backstitch two holes. Cut off threads.



9

While leather is still clamped in jaws, tap stitches with hammer.

SEWING A MITER JOINT — Continued



Use a large edge beveler edge bevel as shown. Moisten and brush with cloth or bone folder. Run over stitch wheel back over stitches.

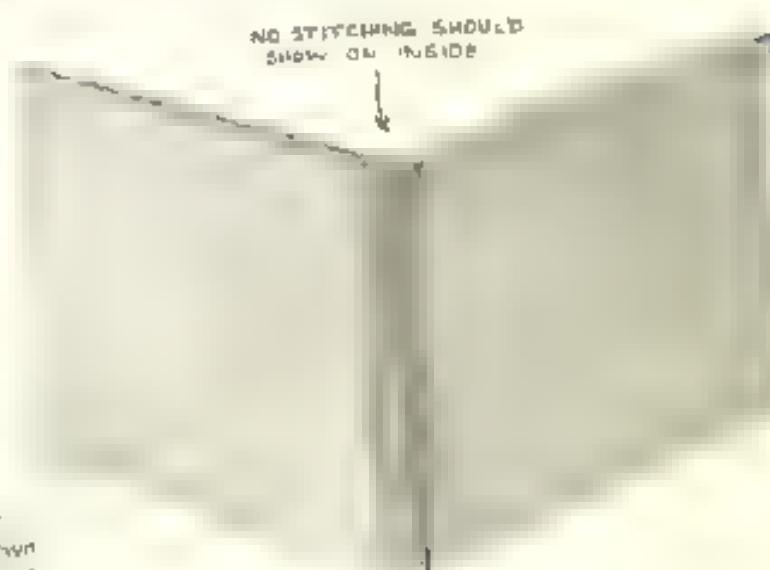
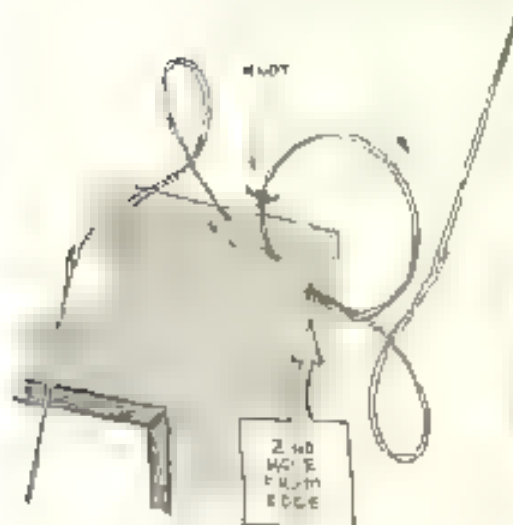
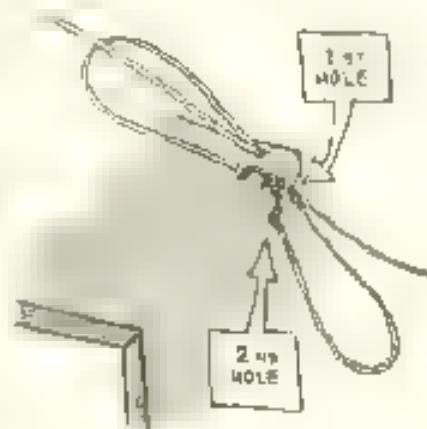


Photo above shows completed miter joint.

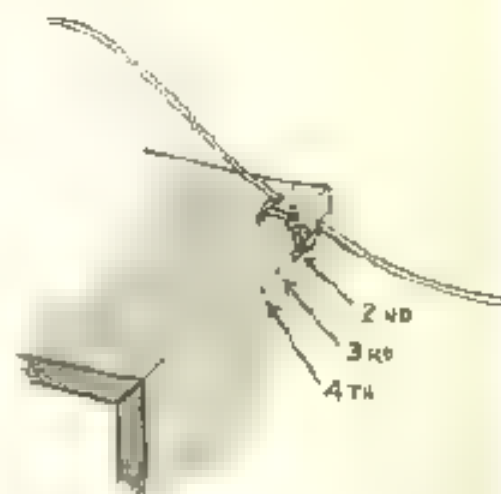
STARTING WITH A KNOTTED THREAD



When beginning with a knotted thread... start in 2nd hole as shown above. See instructions on page 19 steps 44, 45, 46 for making his first stitch.

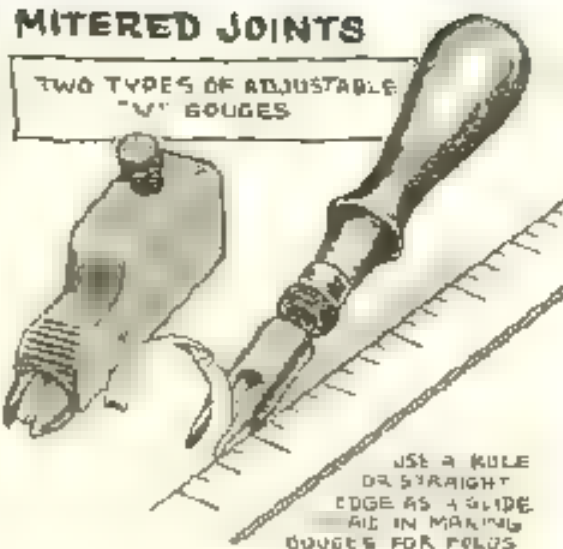
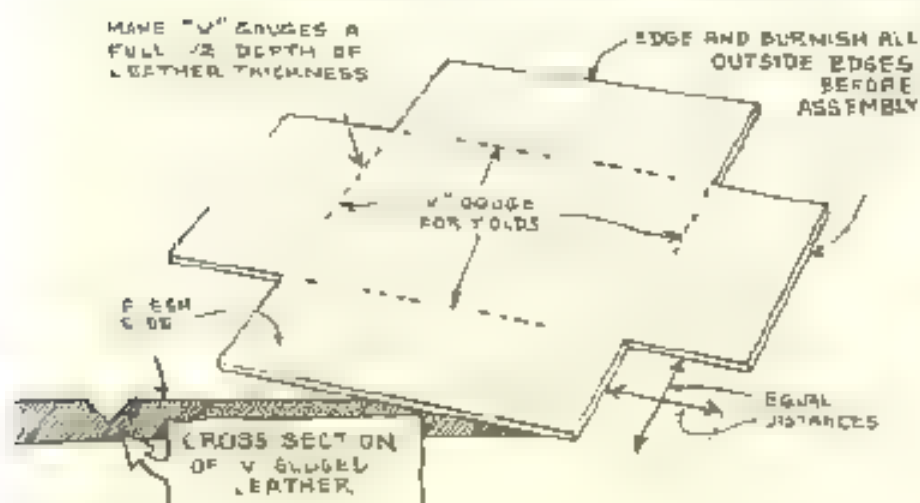


Pull knot down tight on top of miter joint. Stab first hole and push needles through in the regular manner.

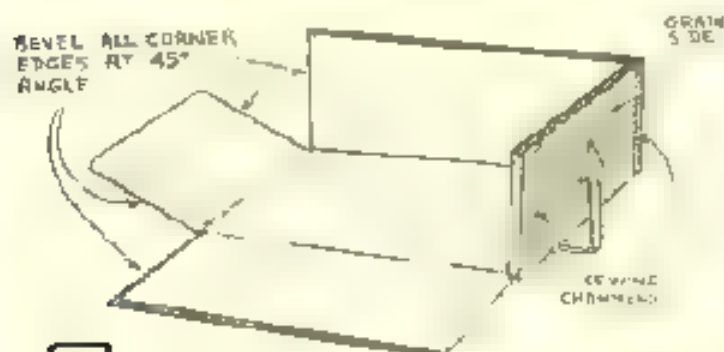


Put stitch tight. Now go back through 2nd hole pull stitch tight. This locks ends of knotted threads. Continue sewing... 3-4 etc to end of project.

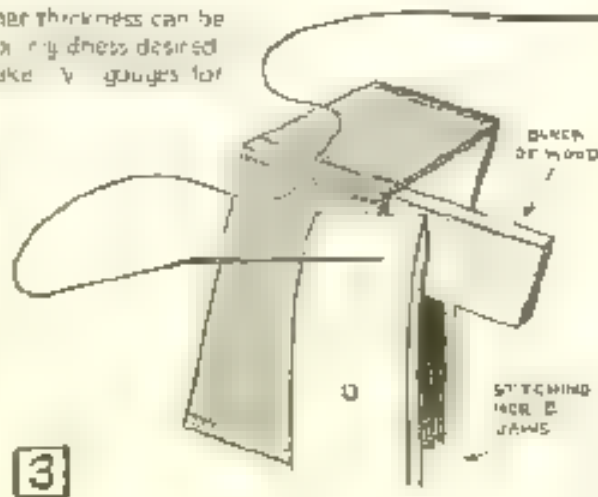
MAKING LEATHER BOXES WITH MITERED JOINTS



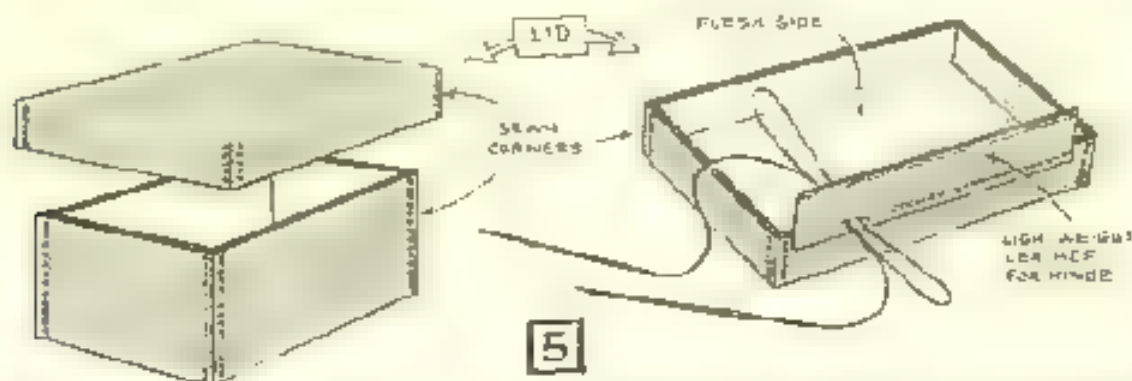
- 1 A simple leather box can be made as shown above. Leather thickness can be from 6 oz. to 12 oz. depending on the size of the box and finish desired. Use a ruler to check the depth of the gouges. Make V-gouges for folds. Study sketch above before beginning.



- 2 Gouge sewing channels on grain side. Mark with glue at each wheel. Turn to flesh side, bevel corners (in be sewn) at 45° angle. See page 22. Moisture the folds, fold and tap with hammer to insure square folds. Apply glue to beveled edges.



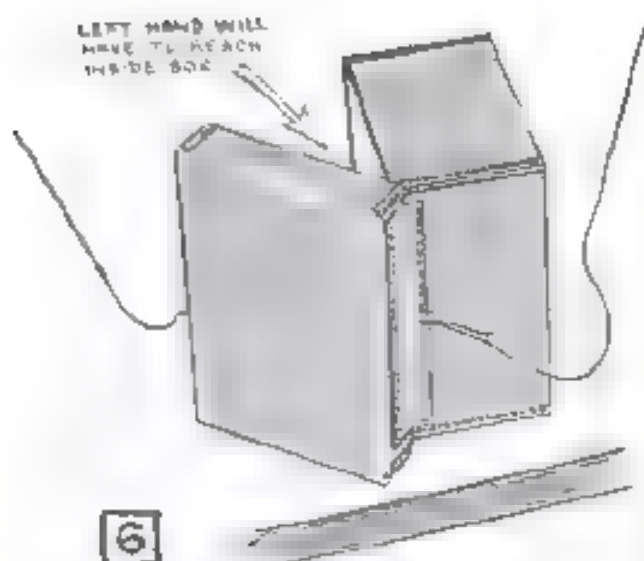
- 3 Adhere corners. Small boxes can be placed in stitching block using block of wood as shown above. Sew the mitered corners. See 1. Use drill as previously instructed. pages 23-24.



- 4 A lid can be made for the box in the same manner. Bear in mind it will have to be made larger to fit over the outside edge of the box.

- 5 To hinge the lid, prepare a piece of light weight leather with a sewing channel on each edge. Burnish the edges. Glue one edge to lid and sew as shown above.

MAKING LEATHER BOXES — Continued



After sewing hinge to lid . . . fit lid on box and glue other edge of hinge to box. To saw . . . set box on bench, or table, as shown above. Open lid far enough to get left hand easily inside. The left hand will have to feel the point of the awl blade . . . and follow the awl back out of the hole, with the left hand needle. See page 51 on how to hold the needle . . . to be able to follow the awl blade back out of the hole.

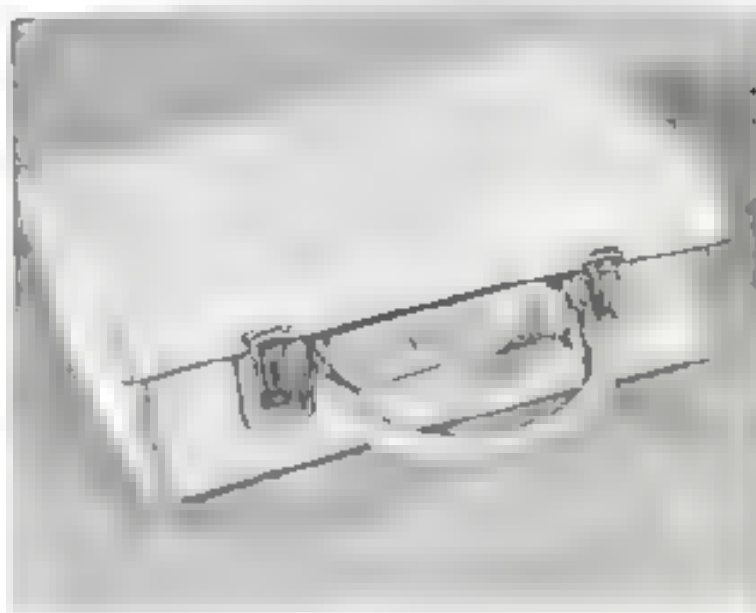
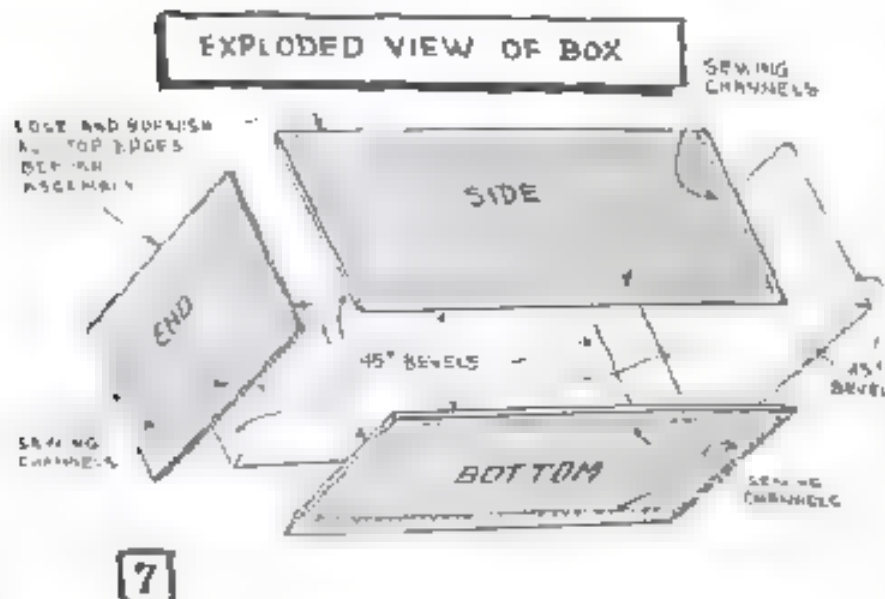
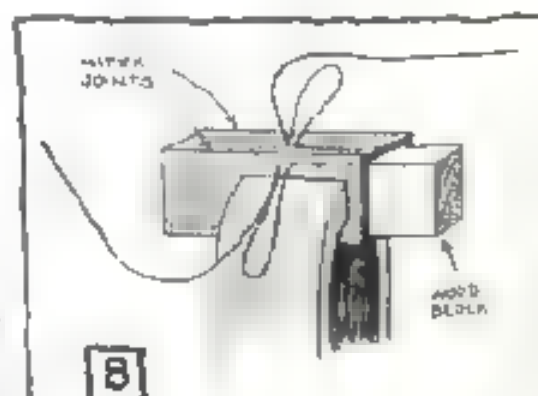


Photo above shows a completed box with addition of catches and handle. You'll note the catches are fastened to leather "blocks" . . . then sewed to box. This is to make them operational with the top part of the catch on the lid. The round handle has been added. How to make round is shown on page 56.



Another method of making a leather box is shown above. This is made of individual parts. All edges to be sewn must be channeled for sewing, and beveled for the miter joints. Much more work is involved with this type of box, but it has the advantage of utilizing smaller pieces of leather.



Small cases can be sewn very easily by making a block of wood the same size as the inside of the case. The case is fitted around the wood . . . and clamped in the stitching horse. After all sewing, finish joints as previously described. Remove the block.

NOTE: IF BLOCK WILL NOT REMOVE, THREAD A LARGE SCREW HOOK IN BLOCK TO AID IN PULLING OUT!

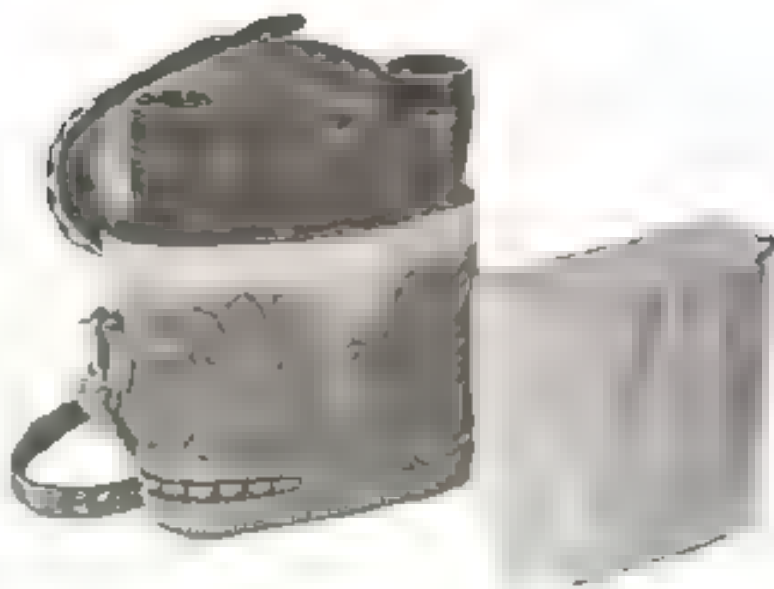
USING WOODEN FORMS

WOODEN FORMS . . . where possible, are a definite aid for making certain projects, they are especially helpful while hand sewing, as the project can be sewn while on the wooden form. The form is then removed.

When making the forms for a specific item . . . check all measurements carefully. The form should be made slightly larger than the item . . . so it (the item) can be inserted and removed easily, after the project is completed.

When carving or stamping designs are used . . . these should be stamped on the leather before fitting to the form and sewing. Also install any snaps, catches, rings, etc., to the leather before assembly.

A few examples of simple wooden forms are shown on this page. With the wooden form . . . the leather can easily be fitted and trimmed for a perfect fit on any given project.



BINOCULAR CASE

This form was made from three pieces of standard board ($\frac{1}{2}$ thick) glued together, and shaped with a wood rasp. Heavy leather was also used on the front for additional build-up.



FILM CARTRIDGE CASE

This simple form was made to fit the 126 Kodacolor Film Cartridge. A strip of leather and two sides is all that is required. Metal edges to be sewn.



CAMERA CASE

This form was made from careful measurements of the camera. Cut out, at side, was for camera trigger. A leather plug was used here (inside case) so trigger could not be tripped. Install snaps and strap dees before assembly.

CAUTION: NEVER SEW A LEATHER PROJECT OVER A WOODEN FORM WHEN THE TOP OPENING IS SMALLER THAN THE "Y" OF THE PROJECT.

HAND SHOE TACKS AS SEWING AIDS

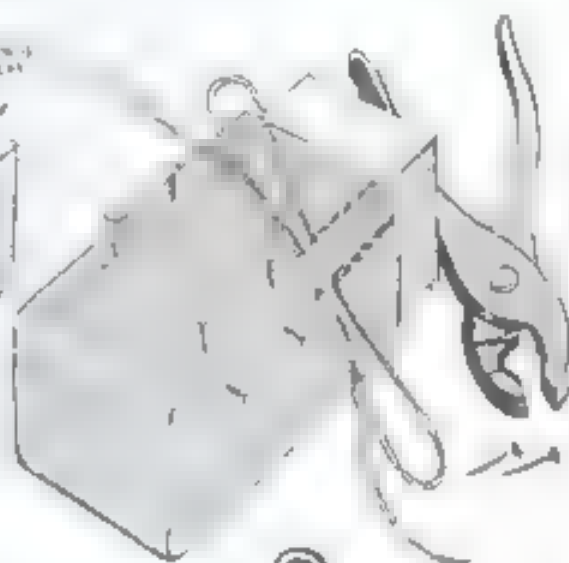


ACTUAL SIZE

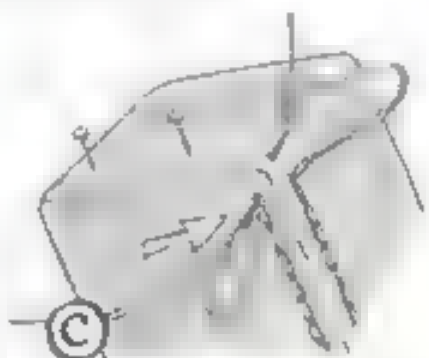
HAND SHOE TACKS have a definite place in hand sewing. They are especially useful where wooden forms are involved ... as the leather can be tacked to the form, and gluing of the joints can be avoided. The 3/4 inch tack is a great all form, and gluing of the joints can be avoided. The 3/4 inch tack is a great all around tack. The illustrations of their uses are shown in this book. Hand shoe tacks should be available in most shoe findings stores and saddlery supply outlets.



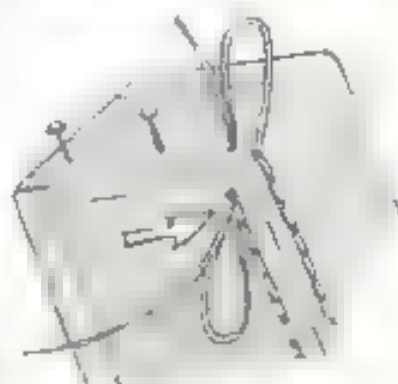
Prepare leather for sewing as previously described. Fit over wood form, and tack in place. Place tacks in overstretch wheel marks. Tap into wood with a tack hammer.



Begin sewing as previous, as planned. Sew to hole in tack. Remove tack with pliers. Continue sewing to next tack. (See illustration C.)



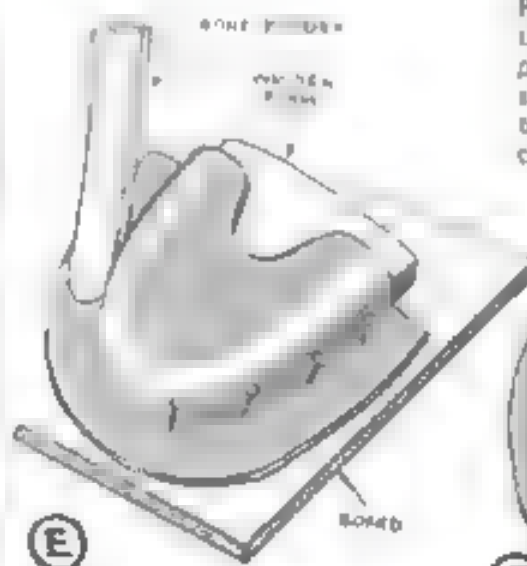
To sew around corner, pull thread through corner hole on front side. Pull threads as shown. Two or three stitches like this may be necessary to get back thread around the corner. Continue sewing.



Pull stitch tight. Stab once more through corner hole on front side. Pull threads as shown. Two or three stitches like this may be necessary to get back thread around the corner. Continue sewing.



Photo illustrates a leather piece being shaped over wooden form. This was shaped over wooden form as shown at right.



Thoroughly wetted leathers can be shaped over wooden forms with a bone folder. Cut leather over top tack. Place shoe to dry.



When dry, remove from board and trim off excess. Edge and burnish all edges. Gauge sewing channel and mark with overstretch wheel.

THE CURVED NEEDLES AND CURVED AWL

The purpose of curved needles and the curved awl is for sewing in places that might otherwise be difficult, or impossible, with the straight needle and awl. Some examples are collapsible fishing rods, telescope cases, thermos bottle carriers, dice cups, etc. With hand sewing fast becoming a lost practice curved needles and awls may be difficult to find in the regular supply houses. If this is the case . . . you can make your own. Follow the instructions below.



AN AWL HAPT WITH AN ADJUSTABLE CHUCK IS ALSO AVAILABLE FOR THE CURVED AWL BLADE

HOW TO MAKE CURVED NEEDLES AND AWLS

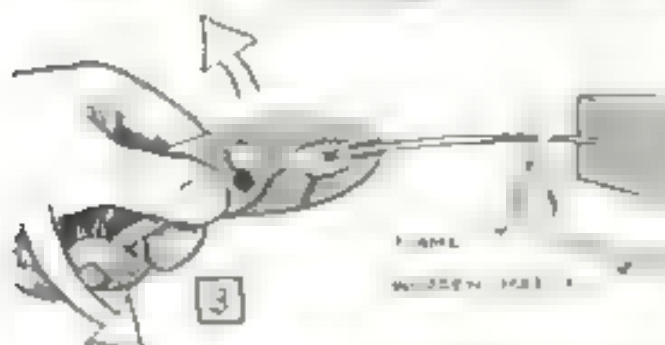
ALL YOU NEED IS A PAIR OF PLIERS, ONE WIRE, ONE NEEDLE, AND A FLAME



Place one of your ing or handles needles in the eye of the needle



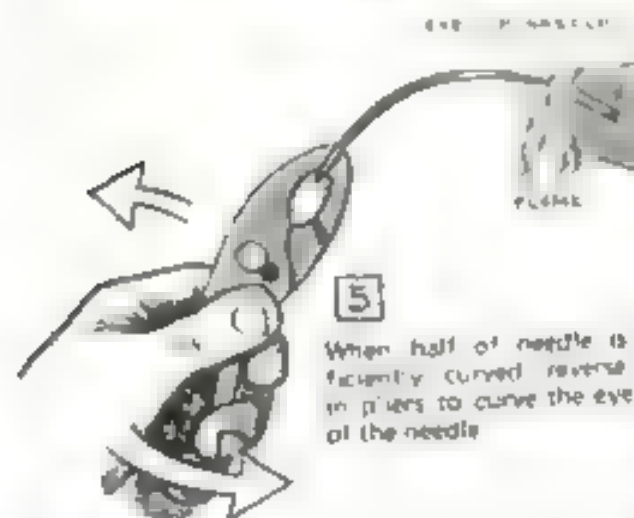
Now just a matter of time for the needle to be heated and the wire to be bent



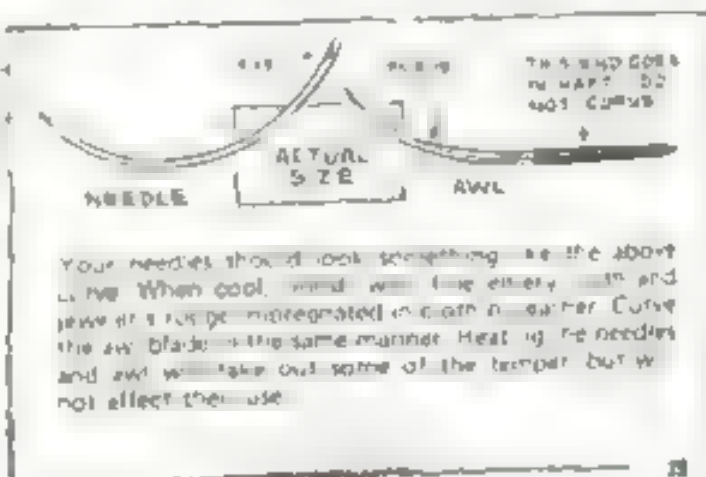
Strike match or use cigarette lighter and heat the needle. Hold the needle tightly against bench and bend it with pliers hand shown by arrow



Move flame back and forth under needle, at the same time applying more pressure with pliers hand shown by arrow



When half of needle is sufficiently curved reverse end in pliers to curve the eye end of the needle

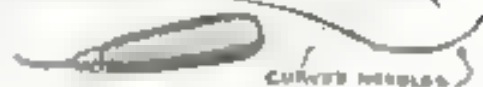


Your needles should look something like the above. When cool, sand with fine emery and jeweler's rouge integrated in cloth. Then curve the awl blade in the same manner. Heating the needles and awl will take out some of the temper but will not affect their use.

HOW TO SEW WITH THE CURVED NEEDLES AND AWL

NOTE: IN
STEP 10, IF
THE
THREAD

MAKE A WOUND AND ATTACH TO THE CURVED NEEDLES AS
DETAILED WITH 45° FOR TOP AND CURVED NEEDLE ADJUST
ABLE TO THE AWL UNIT OR SUE AWL BLADE 3 SHANK

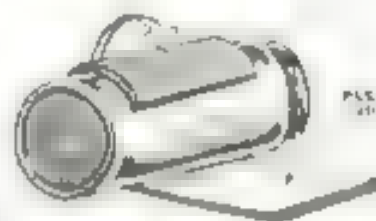


CURVED NEEDLES

For instructional purposes we will make a
leather cup. (Show how to use the curved
needle and awl. Select an inner diameter of
1/2" and form 4" x 6" long. A
wound will be made at the point of
the awl. The wound can be made on
the leather. The leather must be cut off
the leather after sewing. The wound will have
sewn a jar 6" long and 2.5" in diameter.



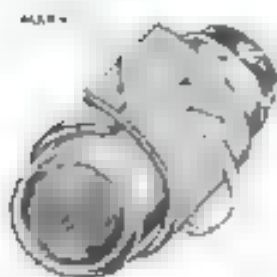
8" H
4" D
PA
GLASS
JAR



LEATHER
CUP

1

Cut a piece of B.9 or leather about 4" wide and a little longer than is required to wrap around the jar.



WOUND

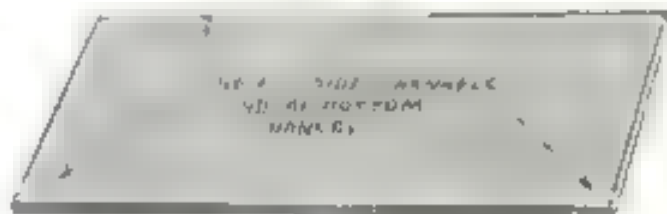
WOUND



WOUND
FOR
THE WOUND



WOUND
FOR THE WOUND



WOUND
FOR THE WOUND

2

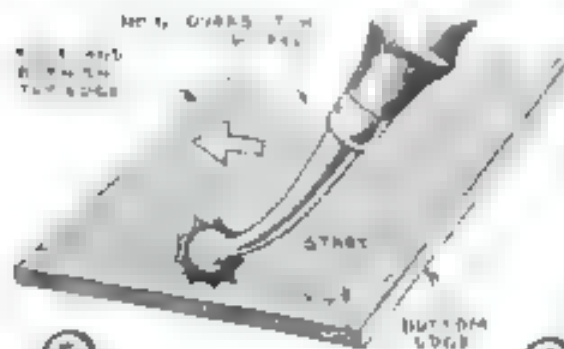
Trim the edges of the leather cup and the wound. The edges should be trimmed. Edges butt together.

3

Trim the edges of the leather cup and the wound. The edges should be trimmed. Edges butt together.

4

Trim the edges of the leather cup and the wound. The edges should be trimmed. Edges butt together.



WOUND
FOR THE WOUND

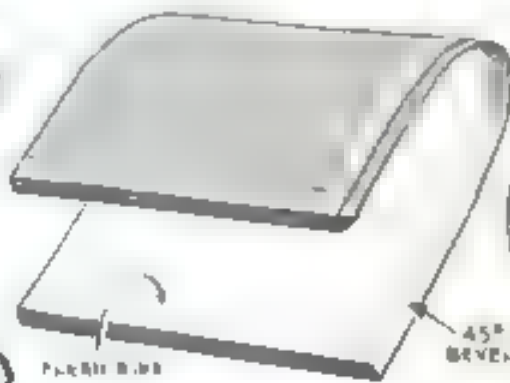
WOUND
FOR THE WOUND

5

Trim the edges of the leather cup and the wound. The edges should be trimmed. Edges butt together.

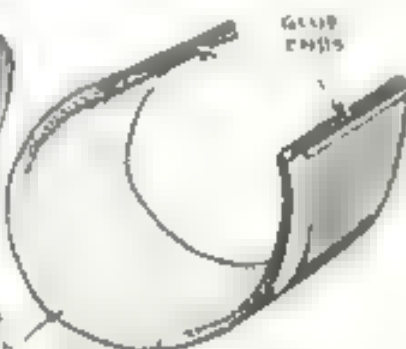
6

Turn leather to flesh side up and bevel the bottom edge at 45° angle with French edge tool, same as for a miter joint.



WOUND
FOR THE WOUND

WOUND
FOR THE WOUND



WOUND
FOR THE WOUND

7

Apply all-purpose (strong bond) cement to both ends. Allow to set to insure adhesion.

SEWING WITH CURVED NEEDLES — Continued



8

Fold leather tightly around at both ends together. Place thumb in this to adhere the edges. Both top and bottom edges are even.



READY TO SEW

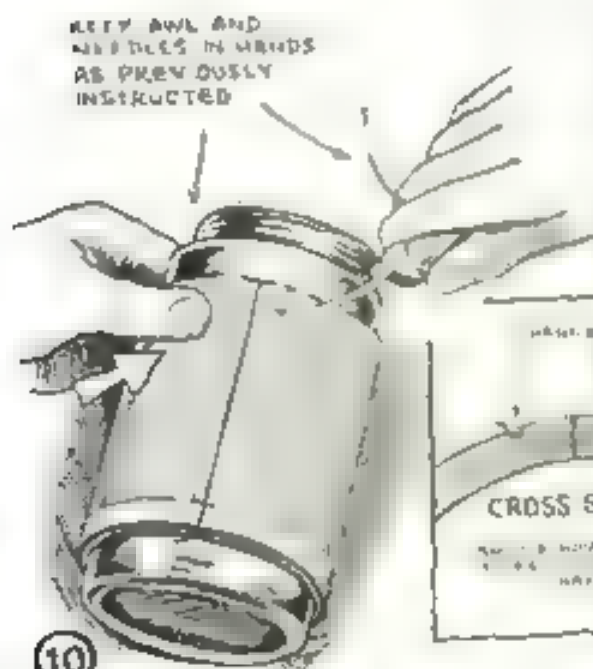
JOB 4 BATHER BETWEEN KNEES

AWL & NEEDLES & THREAD IN HANDS

FEET ON FOOT STOOL OR CHAIR RUNGS FOR ELEVATED COMFORT

9

As you work with the awl, keep your feet steady by sitting on a stool or chair rungs. Have needles, awl, etc. ready to sew. Most often, one is more comfortable with feet elevated.



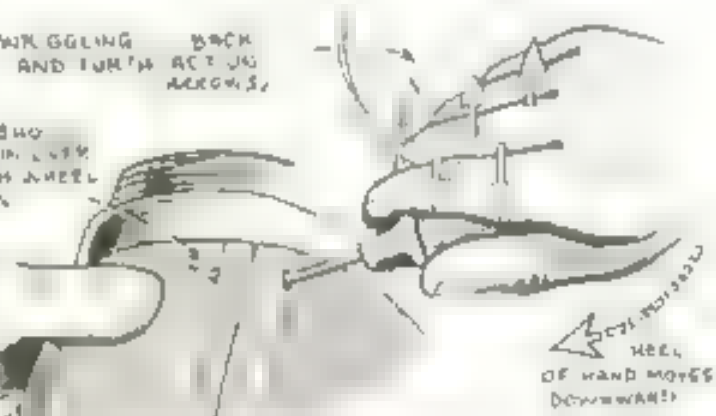
KEEP AWL AND NEEDLES IN HANDS AS PREVIOUSLY INSTRUCTED

10

With project between knees begin stitching first hole. Since the awl is curved you will have to start the hole at a high angle. Use the left hand and thumb arrow to push against the leather.

WIGGLING BACK AND FORTH ACTING ARROWS,

AWL SHOULDER IN LEATHER SUCH A WHEEL MARK



HEEL OF HAND MOVES DOWNWARD

11

As you apply pressure to the awl a slight wiggling of the handle of the awl may be necessary to move the point through the leather. As the point reaches the handle, simultaneously have a more downward, broken arrow and upward so that the point of awl will come out in wheel mark in opposite channel all the while wiggling.

The awl point wants to exit the channel back. If the awl is bent back again, the awl point wants to exit the channel back off the side and rise and the awl will come out in the opposite wheel mark with regularity.

SEWING WITH CURVED NEEDLES - Continued



12

Push needle through first hole and pull it out. A second hole will be made.



13

Push needle through first hole and pull it out. A second hole will be made. The needle is now in the second hole.



14

Push needle through first hole and pull it out. A second hole will be made. The needle is now in the second hole.



15

Push right hand needle 'B' through same hole. Always put needle 'B' in same side of hole with needle 'A'.



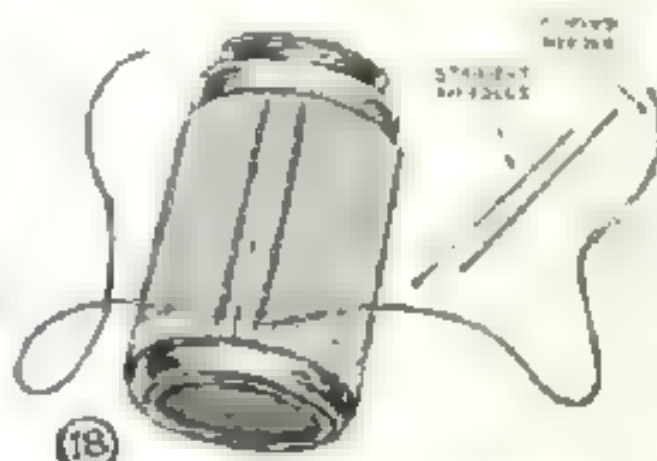
16

Push needle through first hole and pull it out. A second hole will be made.



17

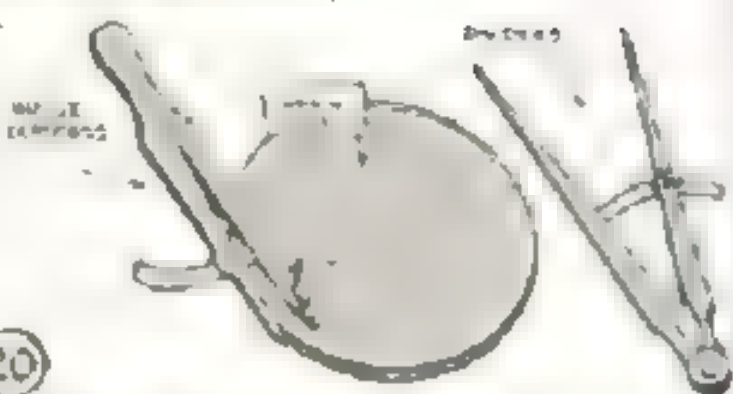
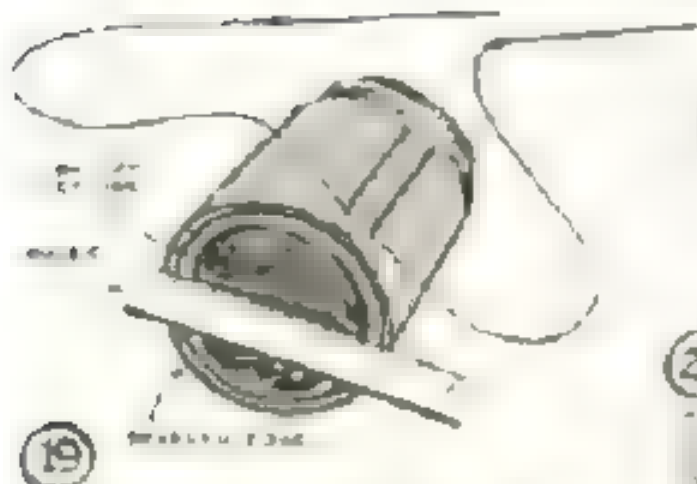
Pull first stitch tight, same as step 21 page 14.



18

Continue sewing down to bottom of finger. Pull the first stitch up tight. Do not cut off threads! Sew like curved needle. The needle is now in the second hole. The needle is now in the second hole.

SEWING IN THE BOTTOM



20

1. The thread is sewn into the bottom edge of the object. The thread is then pulled through the object and the needle is removed.

2. The thread is then pulled through the object and the needle is removed.



22

3. The thread is then pulled through the object and the needle is removed.

4. The thread is then pulled through the object and the needle is removed.

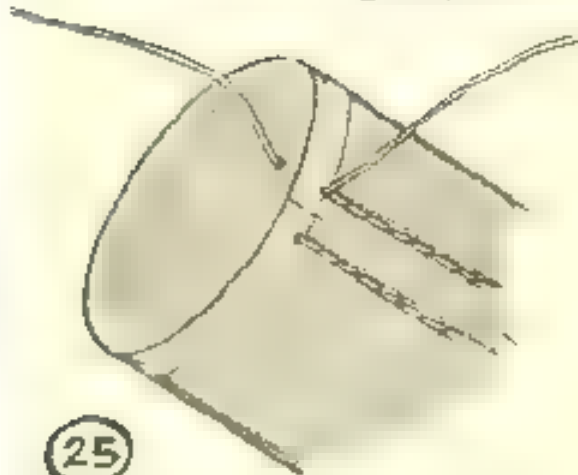


24

5. The thread is then pulled through the object and the needle is removed.

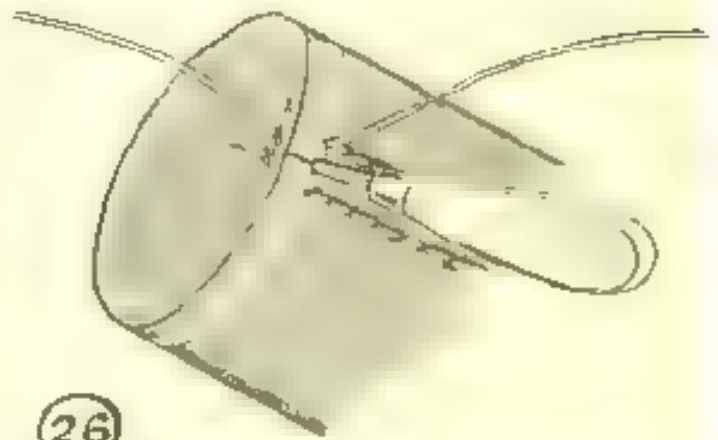
6. The thread is then pulled through the object and the needle is removed.

SEWING IN THE BOTTOM — Continued



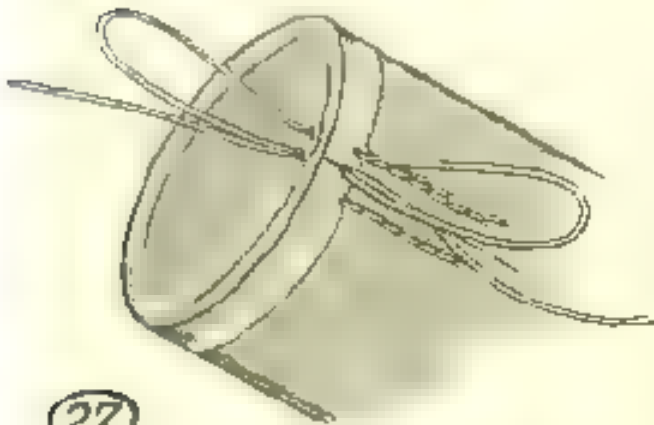
25

Pull thread up tight. Project should now look as illustrated above.



26

Start next hole in channel and come out in bottom channel as shown



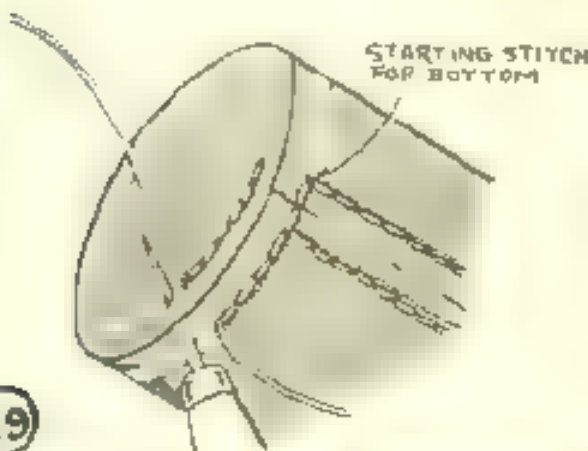
27

Put needle through holes in usual manner. Put up slack.



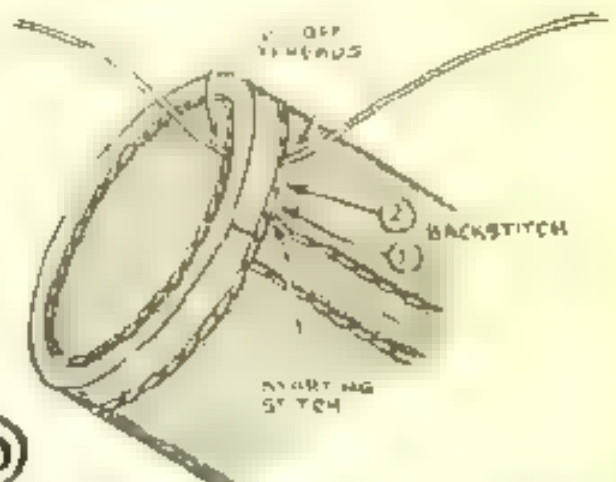
28

Put stitch tight. Start next hole as shown. Aw should always come out in bottom channel.



29

Continue sewing. Note stitches (in bottom) will be shorter than cylinder stitches as the circumference is smaller.



30

Sew completely around bottom to the starting stitch. Backstitch two holes, cut off threads. Tap stitches with hammer. Edge and finish the miter joint... same as step 10, page 24.

COMPLETING THE LEATHER CUP

BONE FOLDER



31

Dunk the project in water . . . and use a bone folder on side seams and rub areas where needles andawl have marked the leather. Allow to dry. Run over stitch wheel over stitches, remove from , or

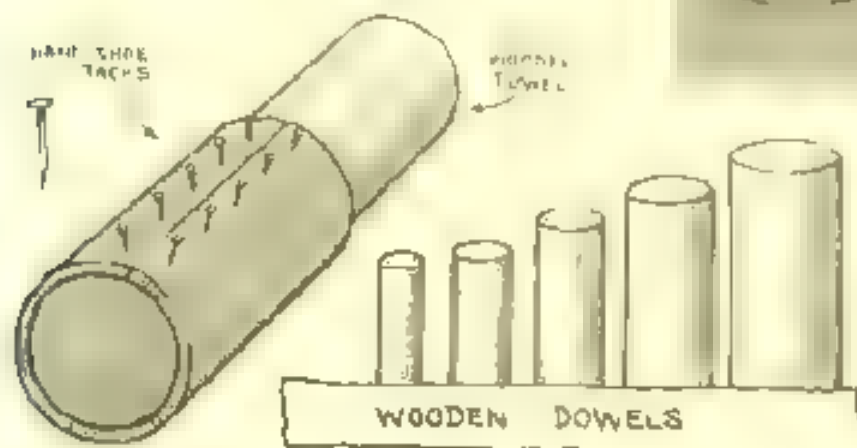


LEATHER CUPS

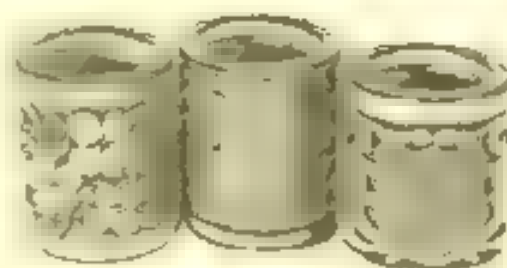
Photo at left shows the side and bottom of two leather cups sewn on the jar. Any carving or stamping should be done in leather before assembling.

HAND SHOE TACKS

WOODEN TUNNEL



Most helpful . . . for making round cases for cylindrical objects are wooden dowels. It is good to have a large range of sizes from 2 to 4" or larger. The leather can be tacked to these eliminating the gluing. Other aids can be lengths of different sized water pipes, etc.



DICE CUPS

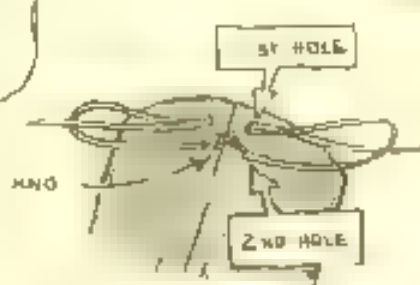
Photo above shows three dice cups of varying designs. After stamping, be sure to check fit again before sewing. Dice cups have an inner ring of leather sewn inside top.

STARTING WITH A KNOTTED THREAD



A

When beginning with a knotted thread . . . start in 2nd hole as shown. See instructions on page 19 for making this first stitch.



B

Pull knot down on top of seam. Stab first time and push needles through in the regular manner.



C

Put stitch tight. Go back through 2nd hole, this locks knotted thread ends. Continue sewing . . . 3-4 etc. . . to end of project. These steps are identical to those of the miter on A B C on page 24.

LEATHER IS 1/4" THICK

SEWING BUCKLES AND LOOPS TO STRAPS

There are many types of harness, saddlery, and belt straps require no buckles and leather loops (keepers) Hand sewing is more durable than machine sewing and often times the only way they can be sewn

BACK END

PREPARING THE STRAP

DET END

(A) CUT STRAP TO WIDTH OF BUCKLE & DESIRED LENGTH

(B) MAKE A TAPERED END
DO NOT SHAPE FOR HERE



(C) CUT TONGUE SLOT. MOISTEN STRAP AT FOLD AND FOLD

(D) JOIN A SEWING CHANNEL ALONG FOLD

(E) IF A HAS REAR OF BUCKLE MARK CHANNEL WITH OVER 1/4" UNDER BY STRAP AT RIGHT

(F) CUT A STRIP OF LIGHTER WEIGHT LEATHER FOR THE STRAP END MARKING THE STRIP FOR 3, 4 W & STRAPS AT VEL EDGES AND MARK IT

(G) FOLD STRIP AT ANGLE STRAP TO DETACH THE LOOP

(H) A STRIP OF LEATHER FOR THE STRAP END MARKING THE STRIP FOR 3, 4 W & STRAPS AT VEL EDGES AND MARK IT

(I) LOOP READY TO INSTALL

SLIGHTLY TAPERED CORNERS (SEE UNLESS NOT NOTED IN FIGURE)

SETTING UP FOR SEWING

LEATHER IS 1/4" THICK

TRIMMED CORNER

(J)

Insert loop between leathers Push in half way of strap, up to buckle tongue Trimmed corner faces buckle



INSIDE VIEW

Note how trimmed corner rests against buckle tongue.

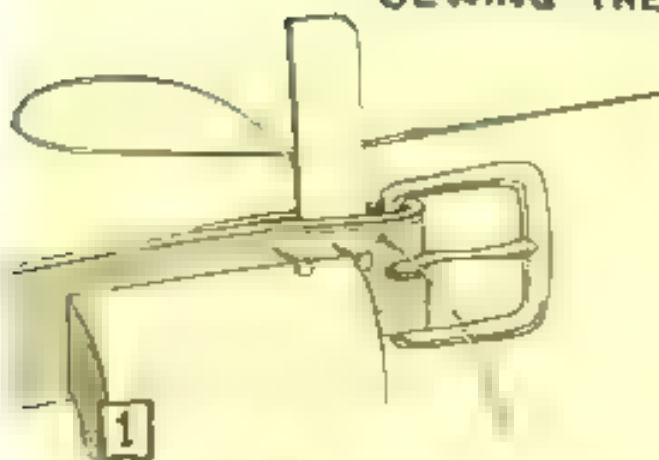
HAND SEW TABLE

NEEDLE SURFACE

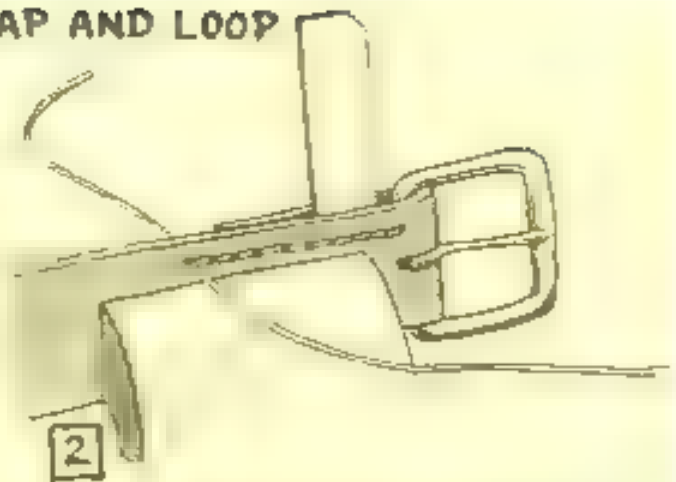
(K)

Tack through leathers, as shown. Straps face inches back to hold loop. You are now ready to sew

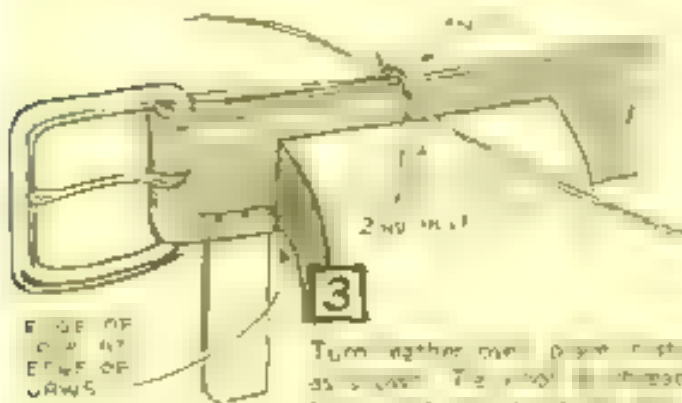
SEWING THE STRAP AND LOOP



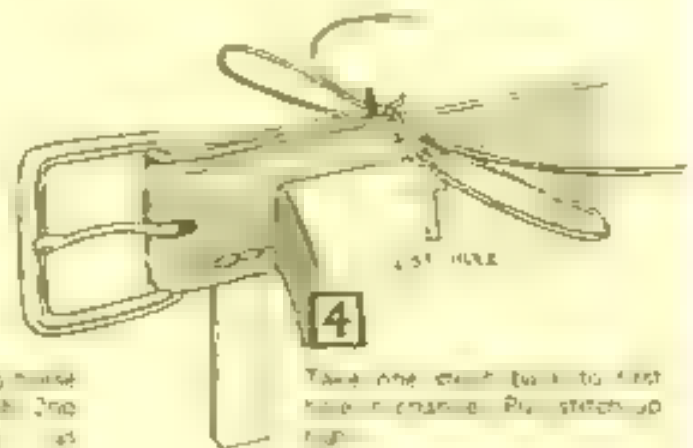
1 Place project in stitching horse as shown above. Make a thread stab (leaving 1" tail) and pull head of needle.



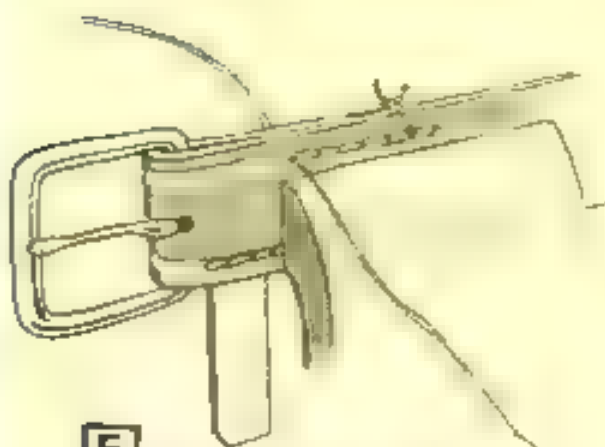
2 Sew to end of channel - pull tacks as you go. Backstitch one or two holes, cut off threads.



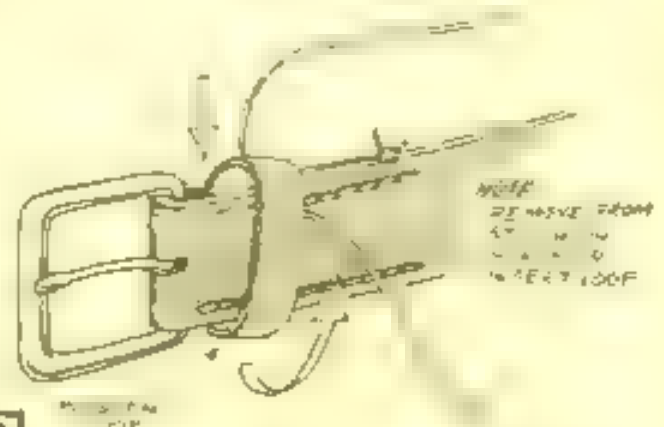
3 Turn leather over, place stitching horse as shown. The strap is threaded with 2nd hole and pull head of needle as instructed in steps 34-45-46 page 9.



4 Take one strand back to first hole in channel. Pull stitch up.



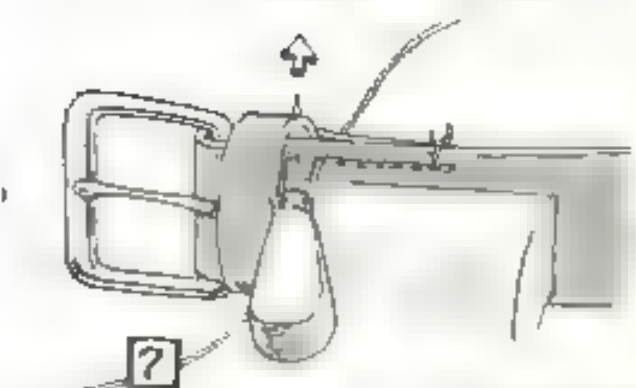
5 Now continue sewing almost to ridge of the stitching horse jaws, as shown above.



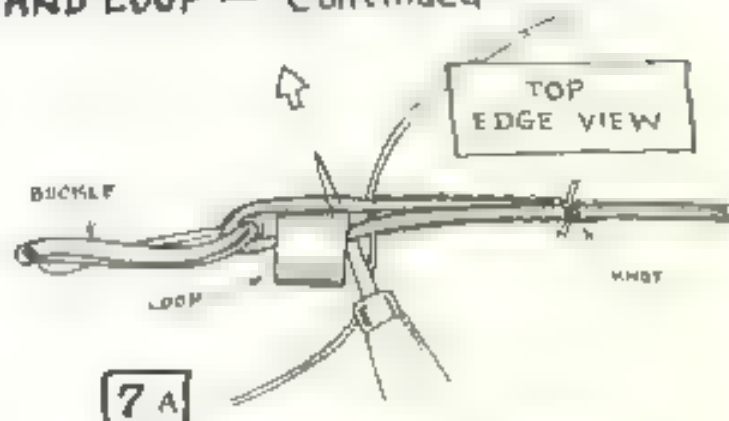
6 Spread leathers - pull loop up and insert between strap leathers as shown above. Push loop all the way down until the ends meet & tuck a tongue.

TIP: Moistening the loop will aid in folding it into place.

SEWING THE STRAP AND LOOP — Continued

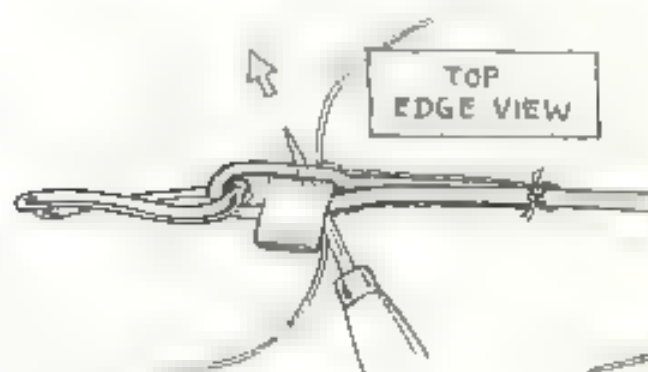


7 Sew up to loop. Then stab next hole inside loop, at a slight angle. Awl blade should pierce loop leather and exit in channel on back side.



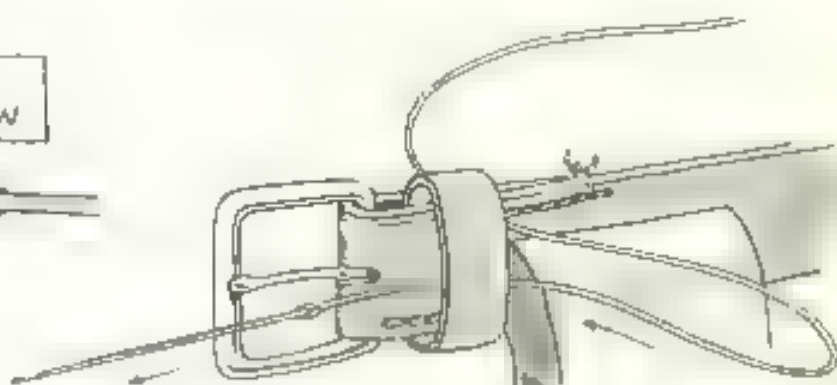
7A

This shows top view of step 7 at all. Be sure loop ends stay close when awl pierces the leathers.



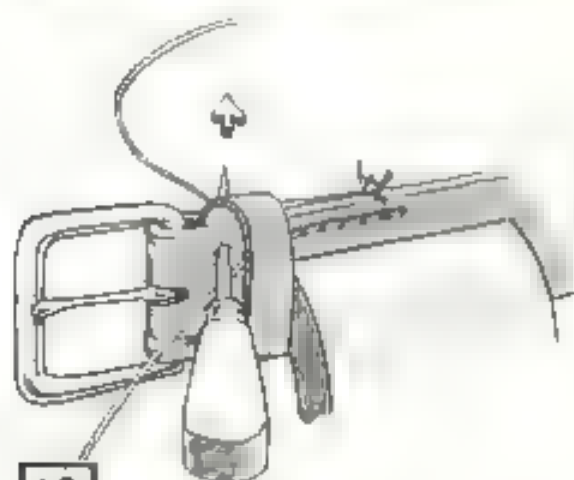
8

Pull stitches tight. Stab next hole in at slightly more angle, coming out in back channel. Insert needles pull stitch tight.



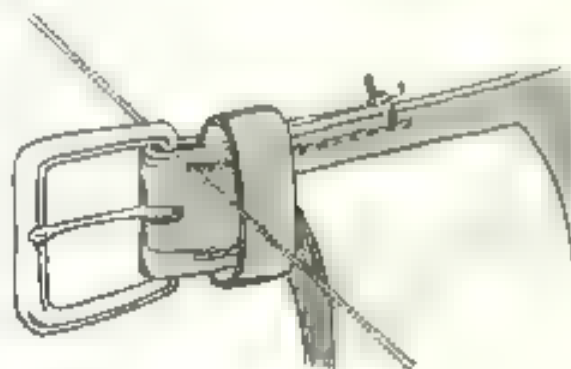
9

Pass front needle inside loop as shown above. Pull back out of thread.



10

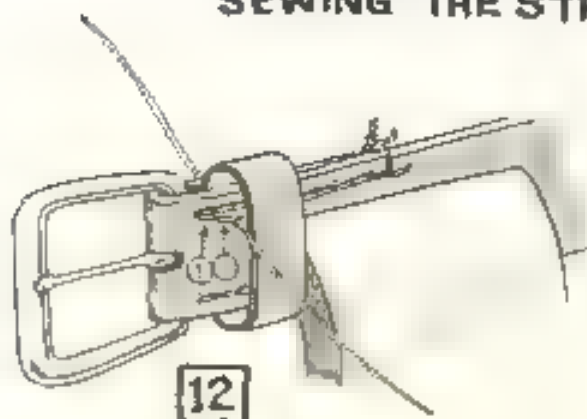
Stab next hole in, angling back through loop, as shown coming out in backside channel. Insert needles pull stitch tight.



11

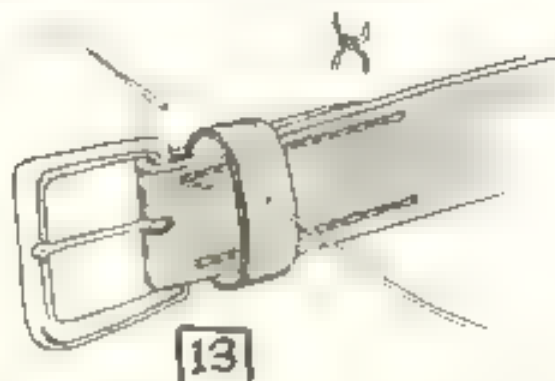
Sew up to buckle. Pull the last stitch tight.

SEWING THE STRAP AND LOOP — Continued



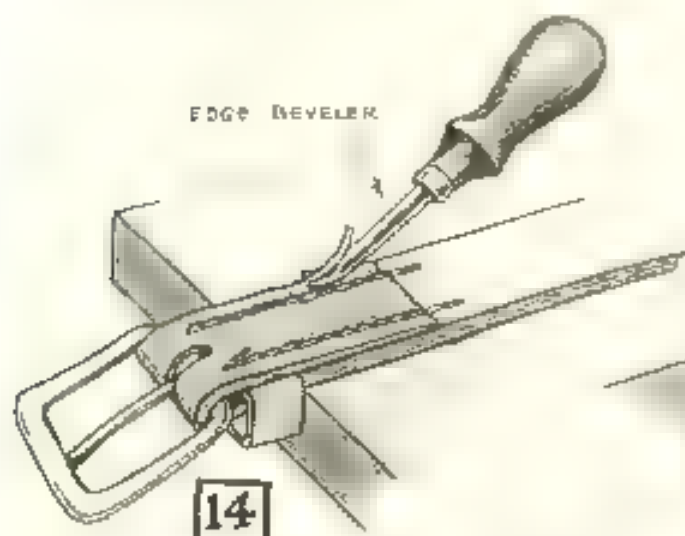
12

Backstitch one or two holes. Note: when backstitching here, stab holes below previous stitches . . . to be sure you do not cut threads with awl blade



13

Cut off the threads, and knot, with a sharp pointed knife. Lay on edge of bench and tap the stitches with a smooth hammer



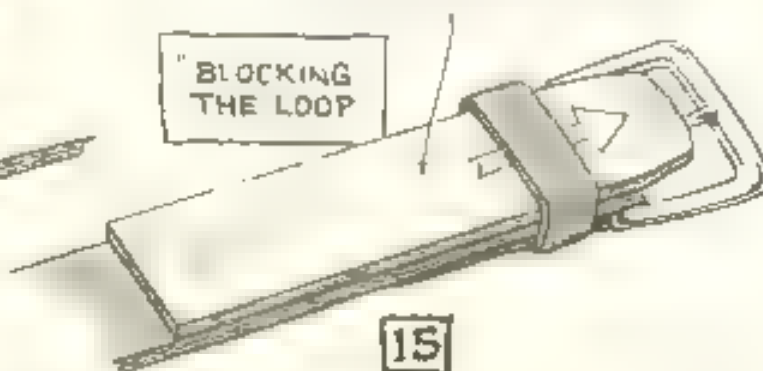
EDGE BEVELER

14

Turn strap over and lay on bench as shown. Edge bevel the ends of the old. Tap stitches with hammer

"LOOP STICK" MADE OF HARDWOOD, METAL OR FIRM LEATHER TO WIDTH AND THICKNESS OF THE STRAP

"BLOCKING THE LOOP"



15

Moisten the loop and insert a "loop-stick" as shown. Tap the loop with hammer (top and sides) to shape without the strap. Remove at once to dry. Before drying, finish smoothing

SPECIAL NOTES



On narrow straps sewing channel can taper to a point midway on strap as shown above. This eliminates cutting threads and re-starting with knot. Sewing is continuous.



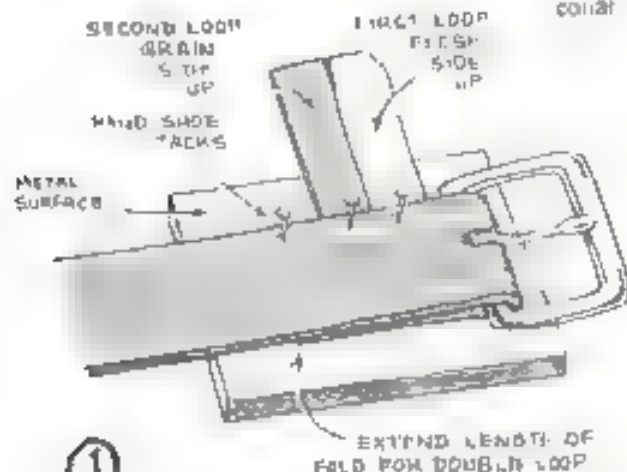
Do not sew across strap as shown above. This weakens the leather much as a perforated stamp taking away some of the strength of the strap

SEWING A DOUBLE (Reversed) LOOP

REVERSED LOOP



This type of strap is used where easy attachment and removal is desired. The strap loops around a ring which is attached through another ring, into buckle. One example is shown in sketch at right used on a breast collar for horse and saddle.

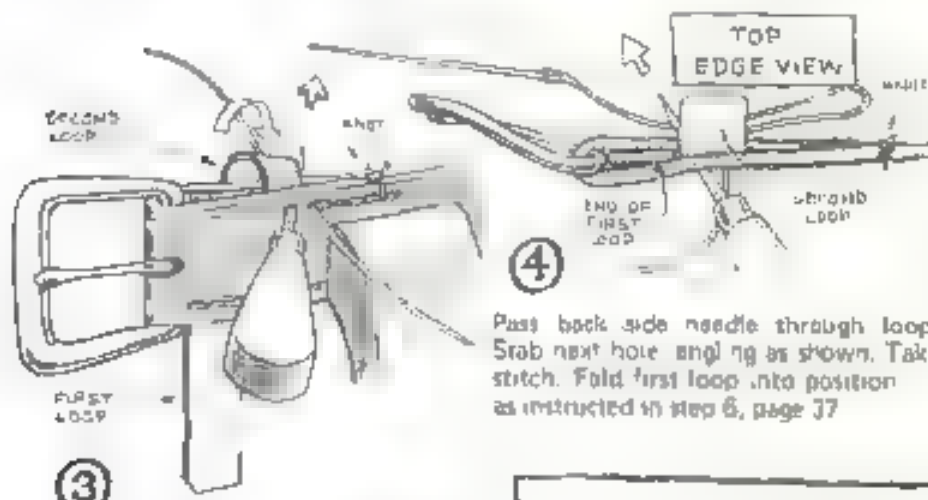
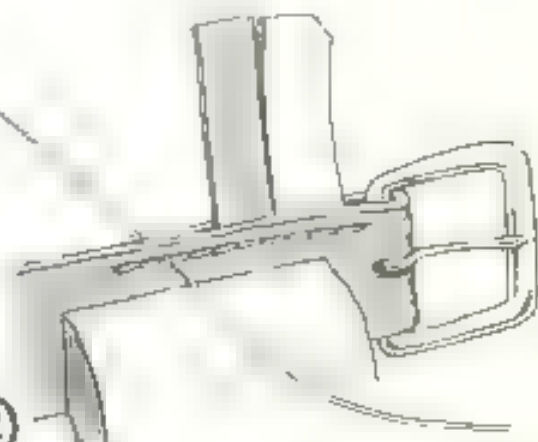


①

Make two loops as previously described. Trim corners on one, this fits against buckle tongue. Set up for sewing as instructed in steps J-K on page 38. Second loop rests next to first loop, grain side up.

②

Sew to end of channel. Backstitch one or two holes. Cut off threads, turn project over in stitching horse. Tie knot in threads.

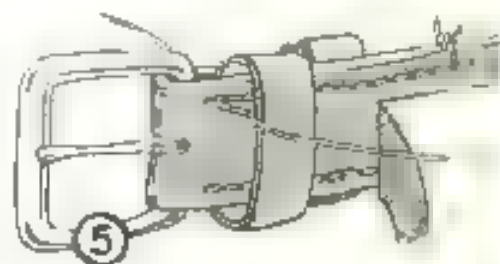


③

Sew up to 2nd loop, spread leathers, fold 2nd loop up, on back side, and push down between leathers until ends meet. Angleawl through loop to take next stitch. Take next stitch at slightly more angle. Be sure ends of loop are still in contact.

④

Pass back side needle through loop. Grab next hole angling as shown. Take stitch. Fold first loop into position as instructed in step 6, page 37.

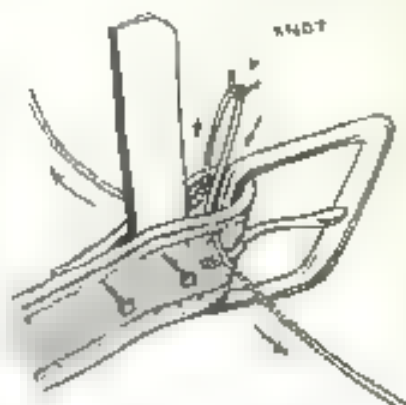


⑤

Continue sewing as described in steps 8 through 12 on pages 37-38. Block the loops, etc., as shown with single loop.

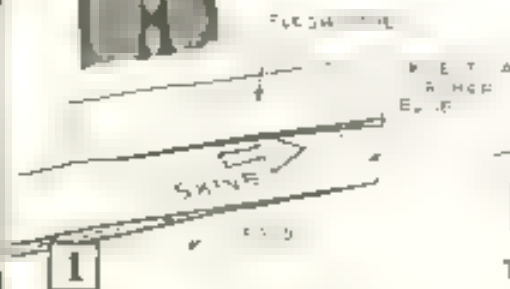
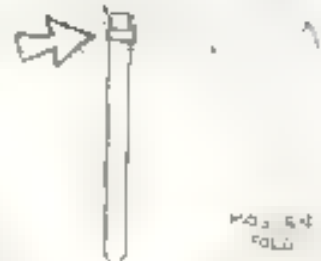
SPECIAL NOTE:

When starting with a knotted thread, stab first hole and insert needles from inside the leathers. Push needles outward, as shown, and pull knot down between the leathers. Continue sewing in the regular manner.

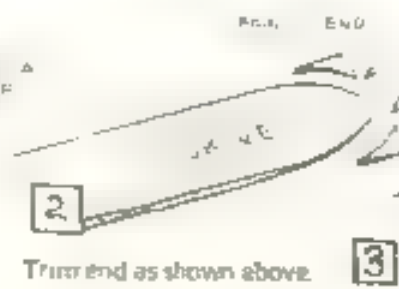


SEWING THE REVERSED SLIDE LOOP

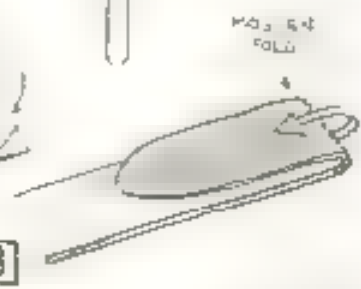
This loop is used on billet straps for their easy installation and removal. One example is shown in sketch at right. The flank cinch belt is used in addition. Photos at right illustrate decorative examples.



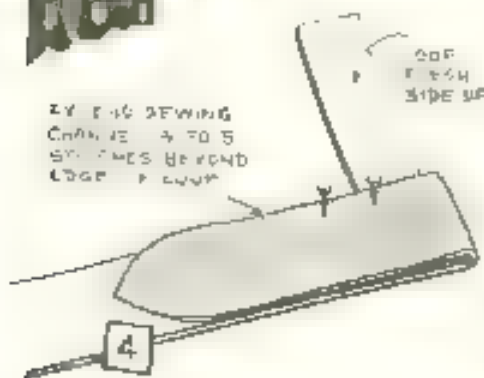
1 Cut strap to desired width and length. Make a longer skive, on end, than suggested on page 16. Skive to a tapered edge.



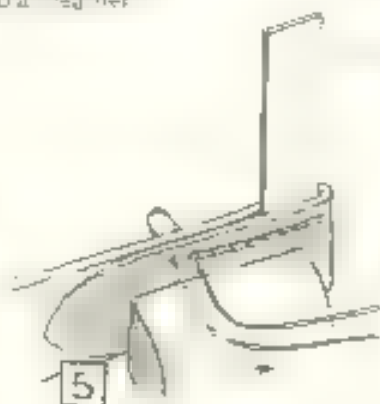
2 Trim end as shown above.



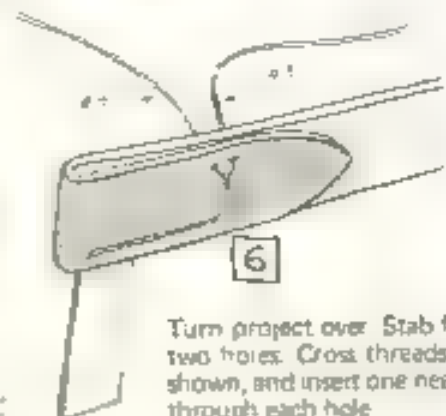
3 Moisten fold area and tap with hammer. Length of folded end should be about twice that for the ordinary buckle loop end.



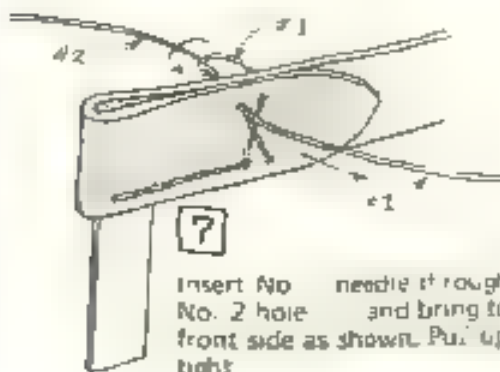
4 Make a loop. Gauge the sewing channels; wheel. Insert loop to half-way of strap. Tack in place. See page 36. Follow procedures outlined.



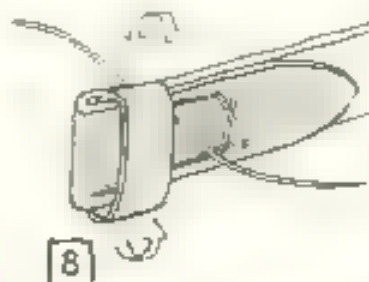
5 Sew up to last wheel mark, pull stitch tight. Stab last stitch in hole, from back side, through a fresh as shown above.



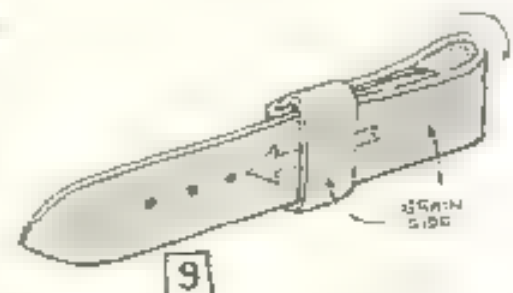
6 Turn project over. Stab first two holes. Cross threads, as shown, and insert one needle through each hole.



7 Insert No. 2 needle through No. 2 hole and bring to front side as shown. Pull up tight.

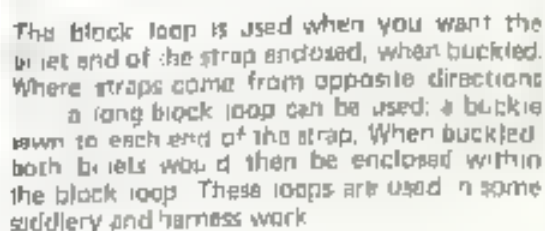


8 Sew up to loop. Fold loop and push down between layers. Complete sewing as instructed on pages 37-38.

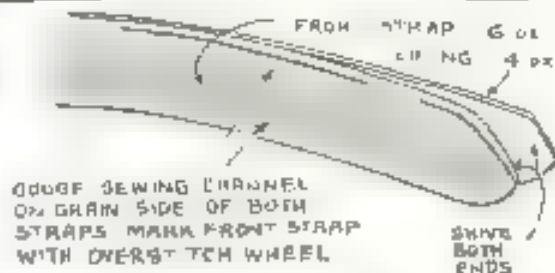


9 Moisten loop and adjacent area. Run strap through loop and pull up snug (see photos above). Be sure skived end also goes inside loop. Tap with hammer to block the loop. Allow to dry in position.

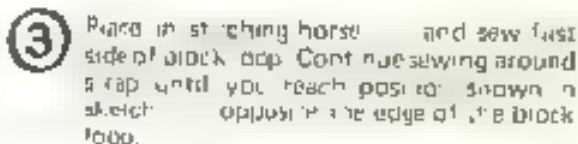
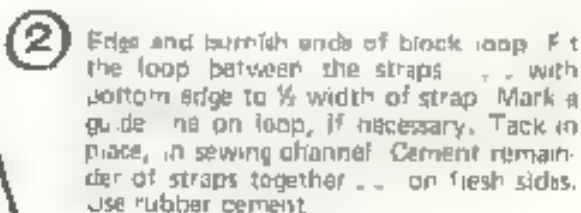
SEWING THE BLOCK LOOP



For instructional purposes, we will make a one inch wide strap. Cut the block loop about 4' long, from 4/5 oz cowhide. Cut the front strap from 8 oz cowhide, lining strap from 4 oz cowhide.



- ① Prepare straps as instructed on page 36. Edge and secure grain sides of straps. Fasten sides cement together ... up to block load.



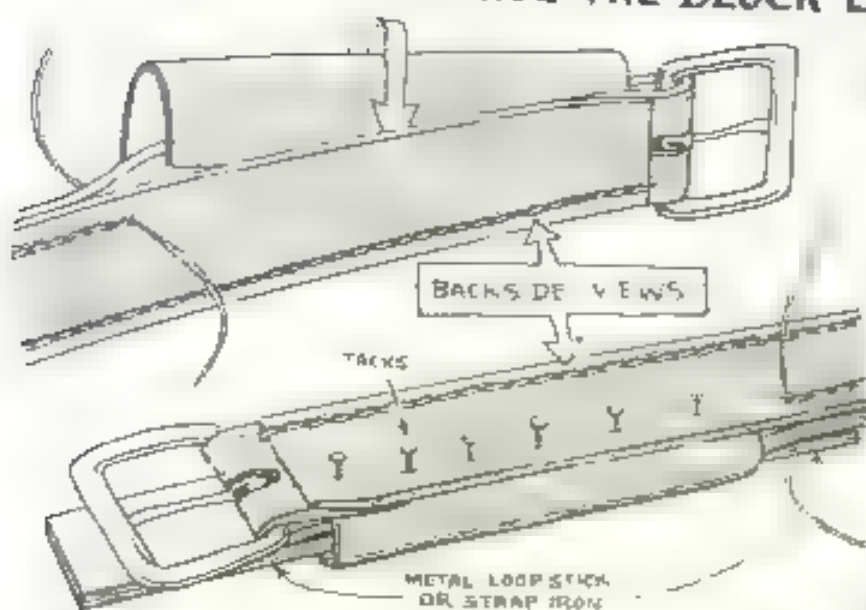
You will need a metal loop-stick or length of 1/8" strap iron ... 3/4" or 1" wide, as shown below. This will be used in step 5.



TRAP IRON

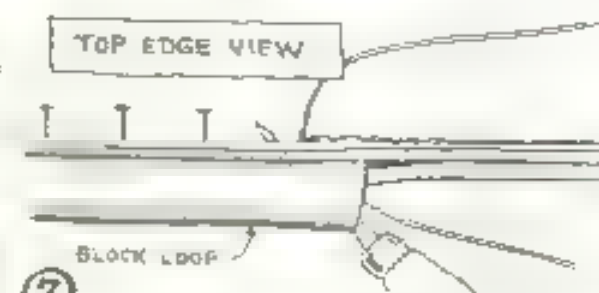
NOTE
AVOID PROLONGED CONTACT OF WET LEATHER AND IRON, IT WILL STAIN!
INSTANT ACTION OF CAUSTIC WASHING WITH SOLUTION OF CAUSTIC ACID WILL REMOVE STAINS
DILUTE ACID CRYSTALS WITH WATER

SEWING THE BLOCK LOOP - Continued

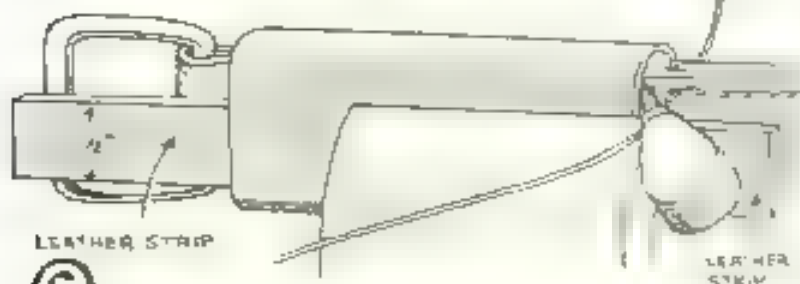


- ④ Spread straps and push other side of block loop down between leathers. Push all the way down to other edge of loop. Moisten the block loop - it will be easier to push into place.

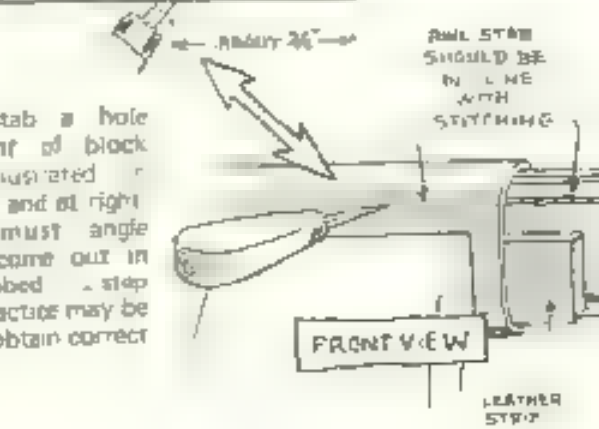
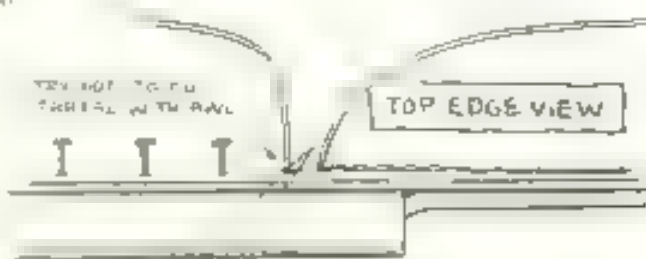
- ⑤ Side metal loop stick inside block loop, as shown. Be sure leather loop is held in place. Tack in the sewing channel. Tacks clinch on metal.



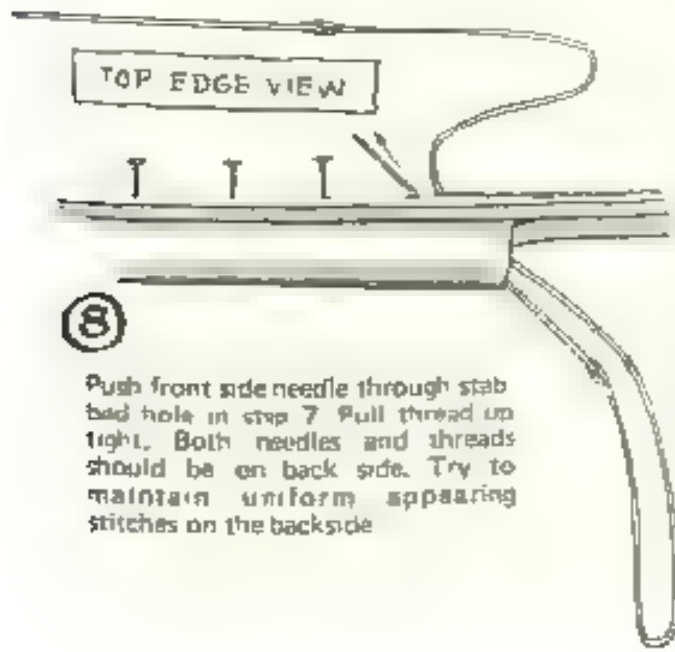
- ⑦ Now - continue angling stitches through open end of block loop until you reach the extreme angle, as above. Remove tacks as you go. Point of awl should exit in channel on backside with each stitch. Do not put needle (from backside) through this (an extreme angled hole).



- ⑥ Remove metal from loop. Insert a wide end ofawl, leather inside loop. Keep to lower side of loop, as shown. This keeps loop open when clamped in stitching horse. Sew up to loop - then angle awl in loop, as shown. Follow steps 7-8 on page 38.

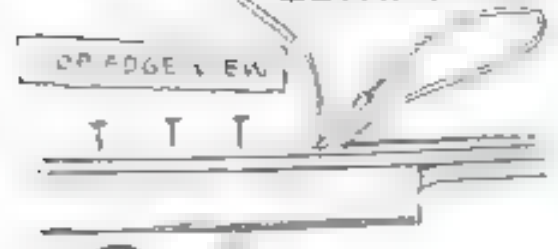


- ⑨ Now stab a hole through front of block loop as illustrated in sketch above and at right. The awl must angle through to come out in last hole stabbed in step 7-8. Some practice may be necessary to obtain correct angles.



- ⑧ Push front side needle through stabbed hole in step 7. Pull thread up tight. Both needles and threads should be on back side. Try to maintain uniform appearing stitches on the backside.

SEWING THE BLOCK LOOP - Continued

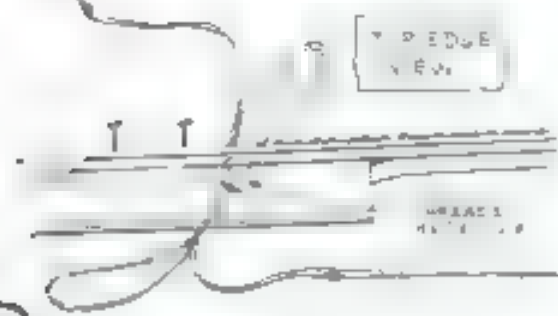


10



11

Insert end in same hole in block loop front and angle over for next stitch

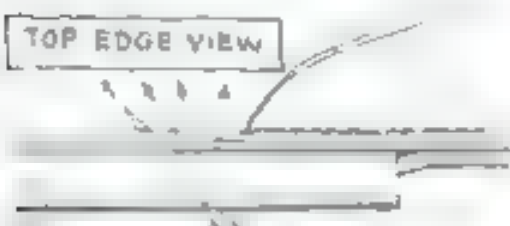


12

Continue sewing in the usual manner. Needles and threads exit and enter the hole in the front of the block loop



13



14

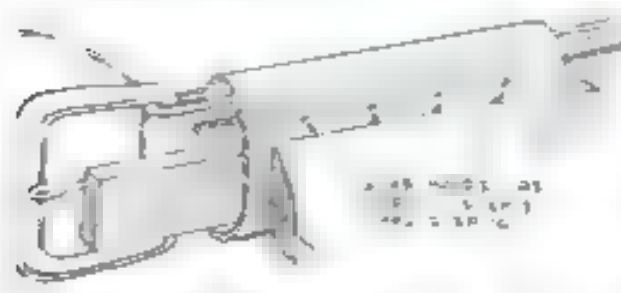
Continue sewing angling each stitch through hole in loop until you reach extreme angle above

15

Push front edge of block loop up and pull it down

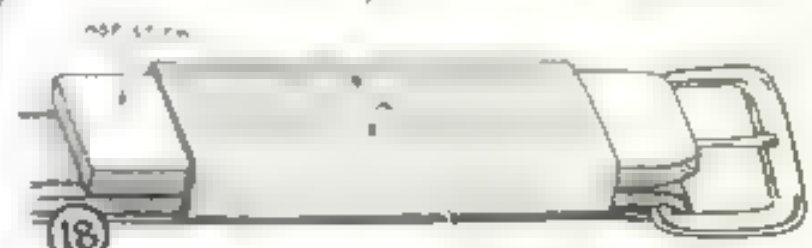
16

Push end of block loop up and pull it down



17

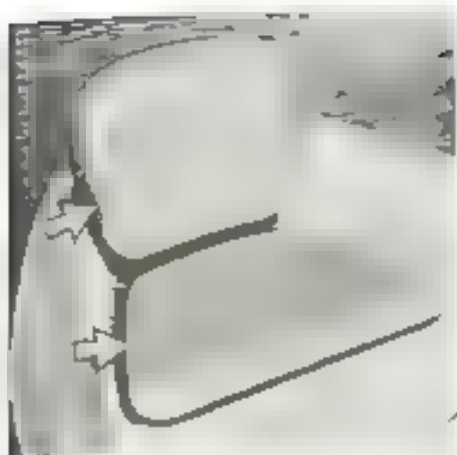
Push front edge of block loop up and pull it down. Push end of block loop up and pull it down. Push front edge of block loop up and pull it down. Push end of block loop up and pull it down.



18

NEEDED BORDER LINES

Block the top of the block loop. To camouflaged the top of the block loop, use a creaser or not border, use a creaser and use border stamp. (See photo page 42) A metal loop stick must be used for this.



BOAT SEAT This project was made of vinyl material with vinyl welts. A 1/2" foam rubber was used to pad ding. See fits bow of boat.

SEWING WELTS

Welts are used where two pieces of material join. This strengthens the seams and adds to the general pleasing appearance. When the shape of an object cannot be covered with one piece of leather, it must be split, or made of several parts. This is where welts are used. Two examples are shown with photos at left and right. Both were sewn by hand.



SADDLE WELTS The horse of this saddle's welts should be made by cementing with glue. The welt is used to join the leathers.

Welts can be made from most any flexible material. Garment type leathers make good welts . . . can be used in vests, jackets, etc. For heavy weight leathers . . . welts are generally cut from lighter material. Example welts (for saddle shown) were made from 4/5 oz. latigo lace leather. Welts can also be made of single-ply leather (see page 46).

MAKING THE WELT

SPlicing WELTS PAGE 46

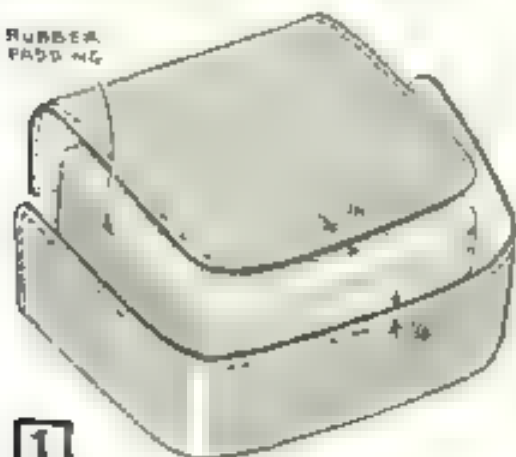
FLESH SIDE

1/2"

The width of the welt is determined by the materials to be sewn. Welts can be from 1/2" to 1" wide. Cement flesh side . . . fold and adhere as shown above. Make welts full length of seams to be sewn. Ex. a length can be trimmed later.

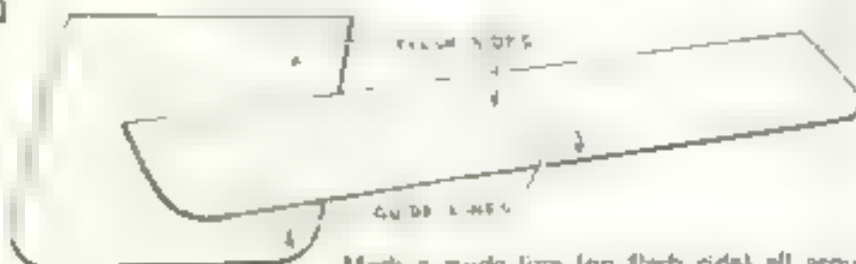
MAKING A CUSHION SEAT

RUBBER PADDING



1

Measure rubber and cut out covering material. Allow extra material for welts indicated by broken lines on sketch above. Allow extra material at bottom, if cover is to be tacked to a base board (see step 10).



2

Mark a guide line (on flesh side) all around edges to be sewn. See below for correct distance.

FLESH SIDE

GUIDE LINE

GRASS SIDE

1/2"

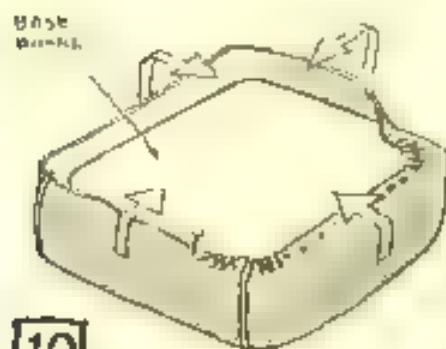
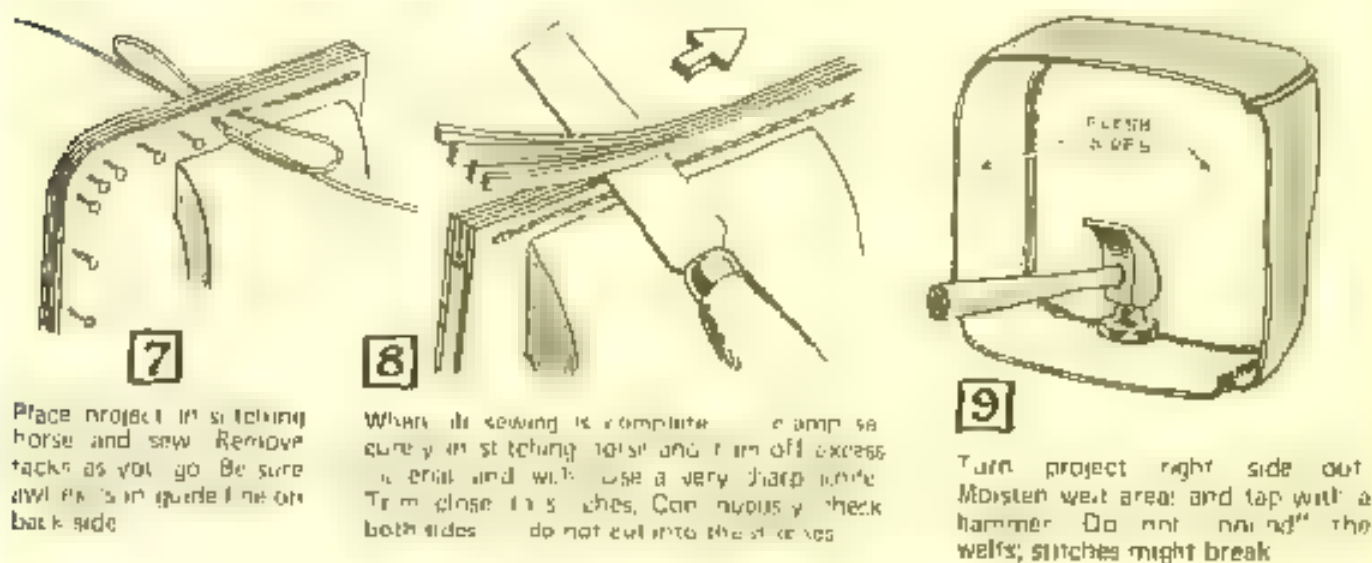
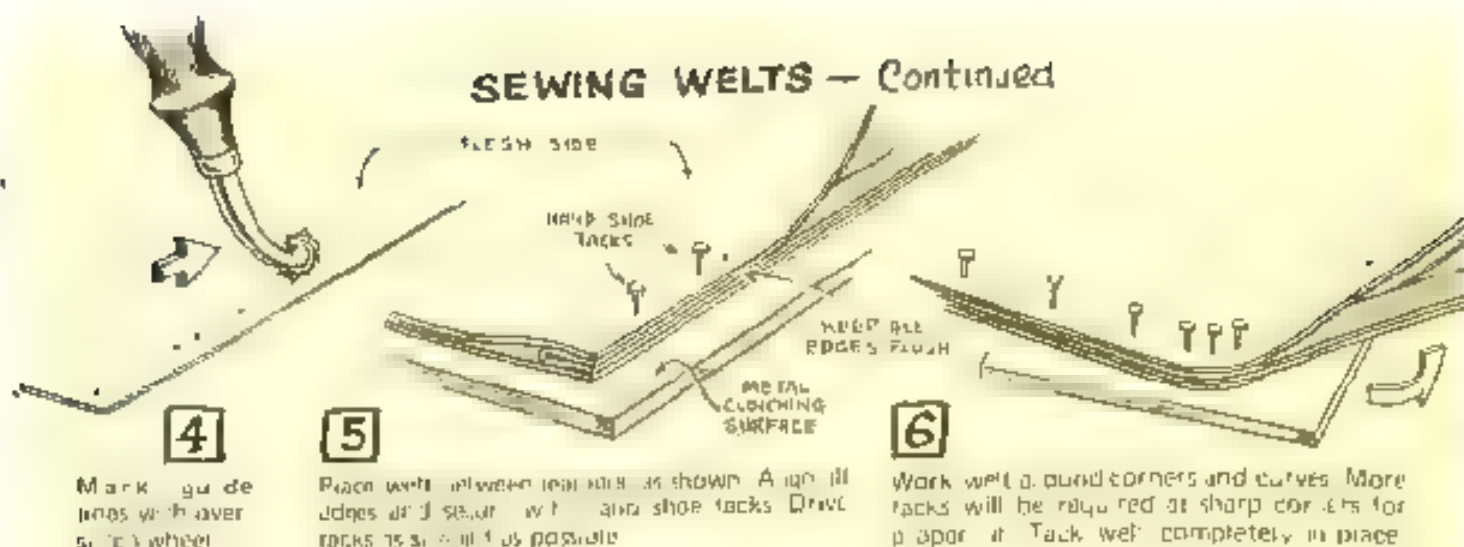
EDGES OF MATERIAL AND WELT SHOULD BE FLUSH

1/2" DISTANCE OR WELT WIDTH

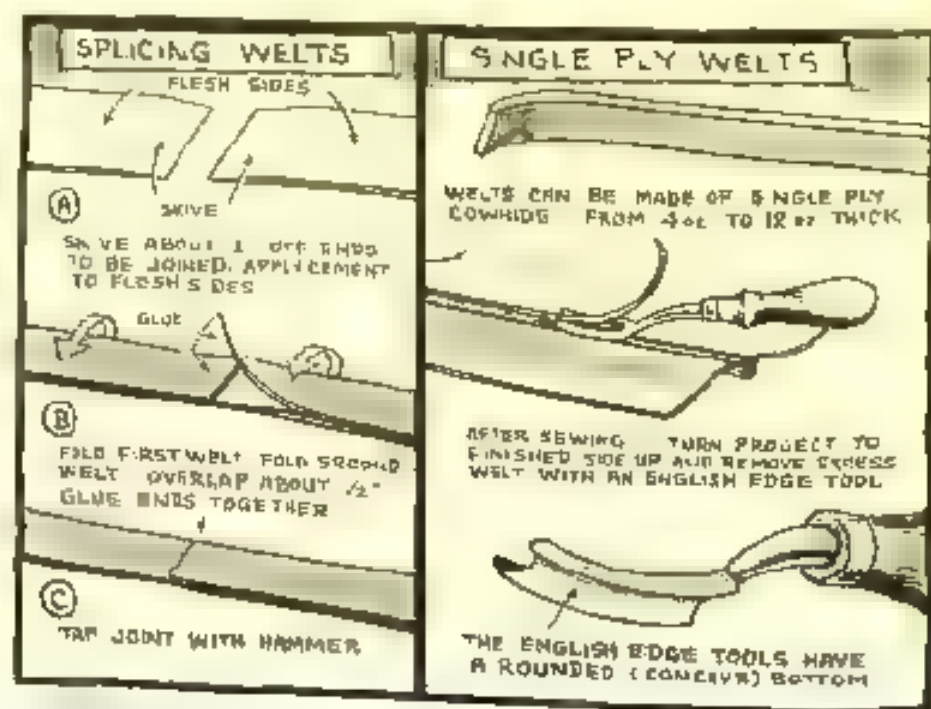
3

Guide line should be 1/2" from the width of the finished welt (from the edge see above). Finished welt is 1/2" wide. Guide line should be 1/2" from edge. Welt is between materials as shown above.

SEWING WELTS — Continued



Slip cover over rubber padding and base board. Turn over pull sides snugly over base board and tack or screw in place.





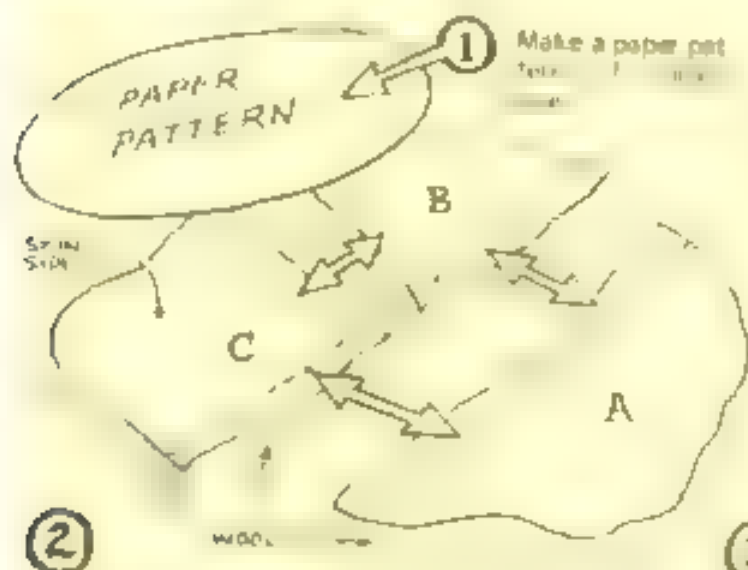
This pillow was made from shearling. The pattern was made from paper. The pattern was cut out of the shearling. The pattern was used to cut out the pieces of shearling. The pieces were then sewn together with baseball stitch.

SEWING THE BASEBALL STITCH

This stitch is used for joining two or more pieces of shearling together. It is sometimes used when shearling is not large enough to line a saddle skirt. It is used here to make the pillows shown. This allows one to use up odd pieces of shearling for various projects. These pillows were made from $\frac{1}{2}$ " shearling.



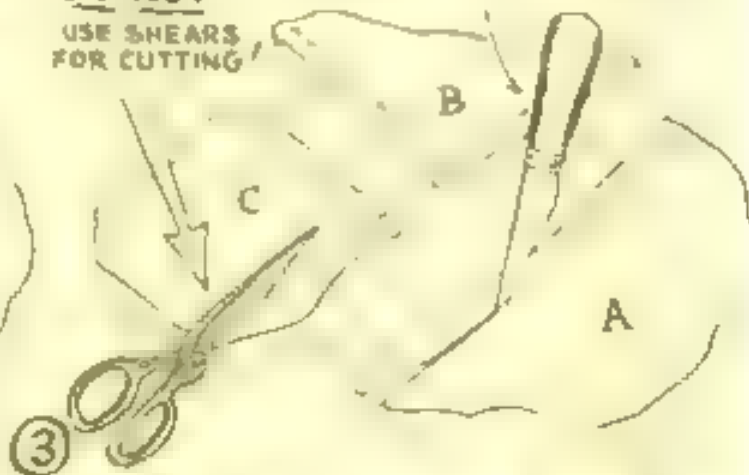
This pillow was made with white shearling. The brand was of cream colored shearling. Insert and sewn with baseball stitch.



1 Make a paper pattern. The pattern is made from paper.

DO NOT
USE SHEARS
FOR CUTTING

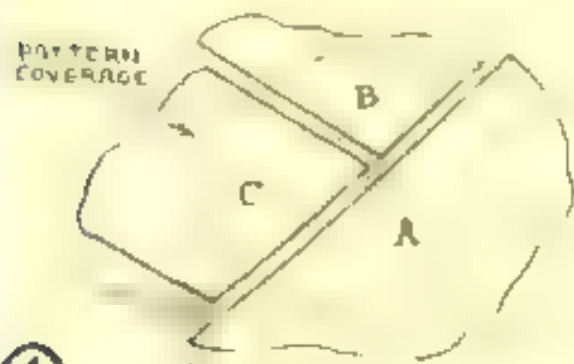
USE A SHARP KNIFE -
CUT ON THE MARK THE SKIN



2

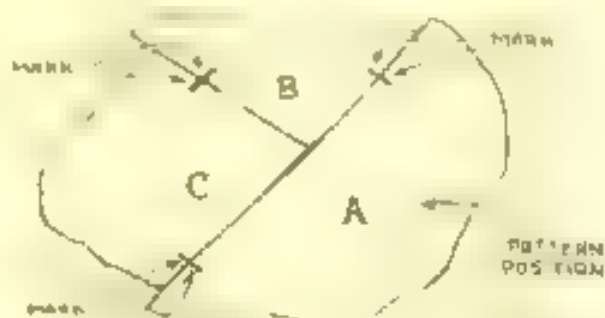
Select pieces of shearling large enough for the pattern. Note the areas to be rounded and the grain which other indicated by arrows on diagram.

At work station, place the wool on the work surface and draw the B, cutting only through the wool. The wool will be cut into fibers, and the fibers will be pulled apart, and blend into fibers of adjoining pieces when sew together.



3

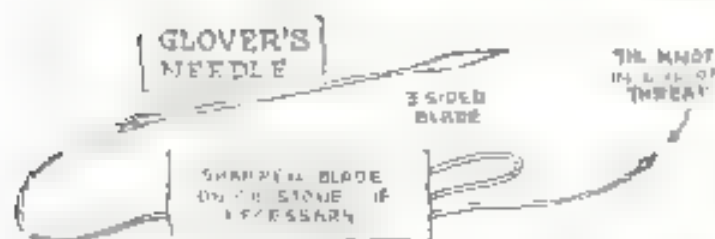
After making parallel cuts, fit pieces together and check for any trimming required. Be sure you have enough area for the pattern.



4

Snug pieces together. Place pattern in position and mark the skins at a seams or pattern edge as indicated above.

SEWING THE BASEBALL STITCH—Continued

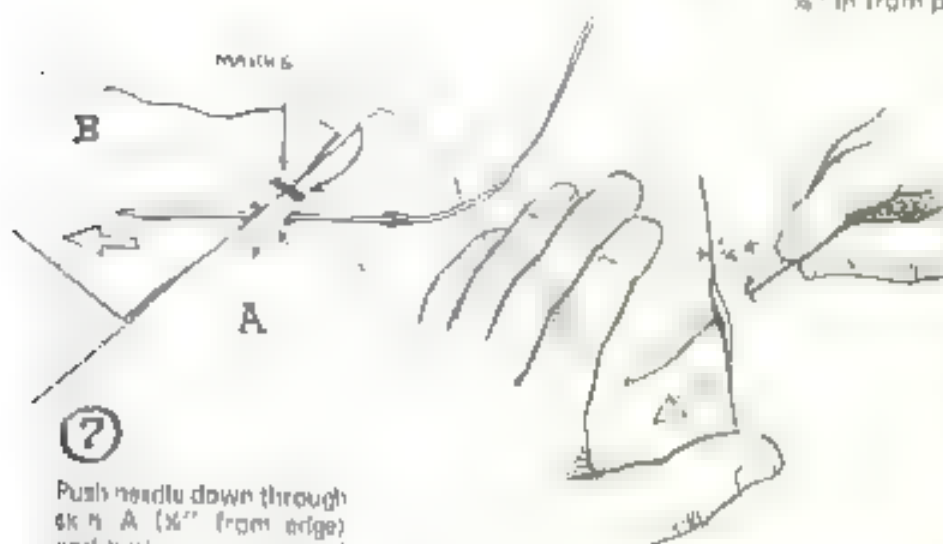


The Glover's needle is used for sewing the baseball stitch. Make a single thread, preparing on only one end for the needle. Tie a knot in the other end. Wax the thread and put on needle as previously instructed.



⑥

Begin sewing pieces A and B together. Begin about $\frac{1}{8}$ " in from pattern mark and $\frac{1}{4}$ " in from edge.



⑦

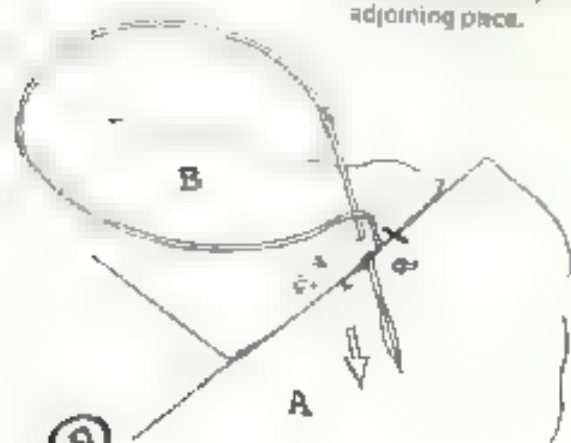
Push needle down through skin of A ($\frac{1}{8}$ " from edge) and back up over edge of piece B.

Needle should come out right under edge of skin of B. The thread must be in place. Needle must be lifted up to come out on top of adjoining piece.



⑧

Put slack out of thread. Put down to knot. Keep pieces A and B in position... with marks.



⑨

Push needle down through skin of piece B and up over piece A as shown above. Be sure to go under thread as shown.



⑩

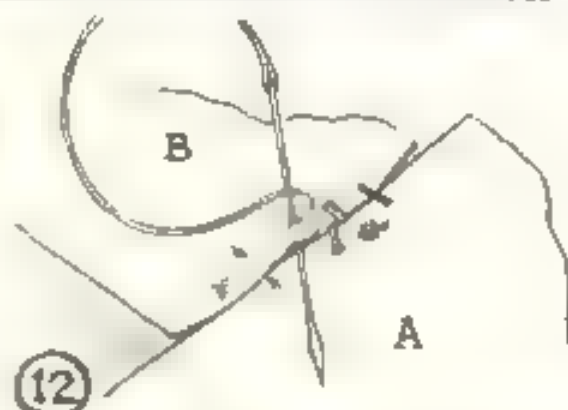
As it is tight up snug, as shown. CAUTION some sheepskins will easily tear. Experience will teach you how tight to pull the stitches.

SEWING THE BASEBALL STITCH — Continued



⑪

Push needle down through piece A above from edge and $\frac{1}{4}$ " from end. Pull up over piece B as shown. Pull stitch snug.



⑫

Push needle down through piece B up over piece A, as shown. Be sure to go under thread. Pull stitch snug.



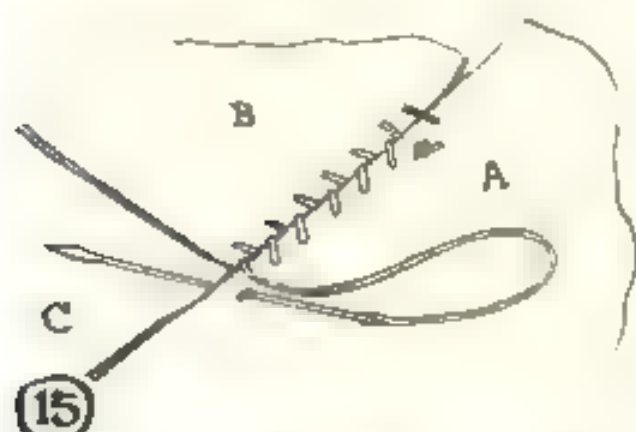
⑬

Continue sewing in this manner. Draw end of piece B. Space stitches about $\frac{1}{4}$ " apart and $\frac{1}{4}$ " from edges.



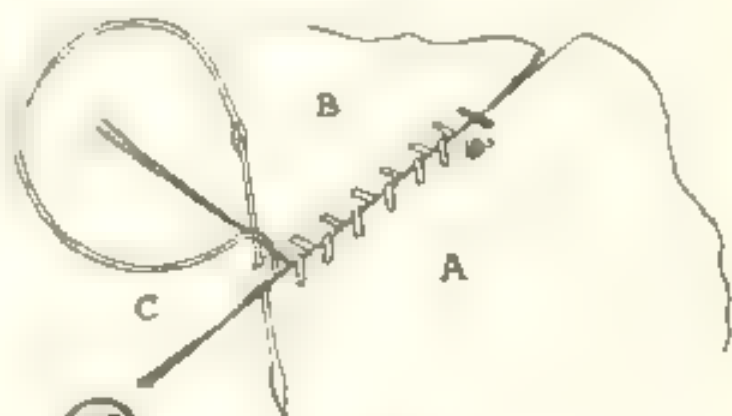
⑭

Push needle down through piece B. Pull back up over piece A as shown. Pull stitch snug.



⑮

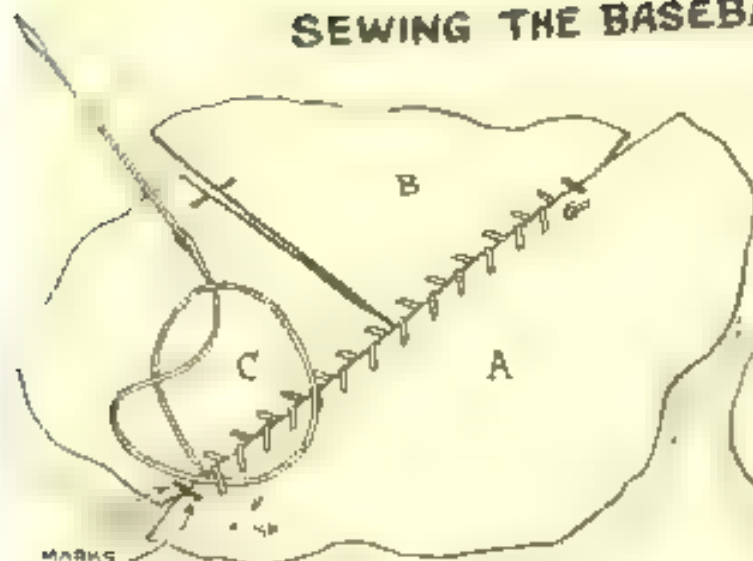
Fit piece C in position. Push needle down through piece A up over piece C. Pull stitch snug.



⑯

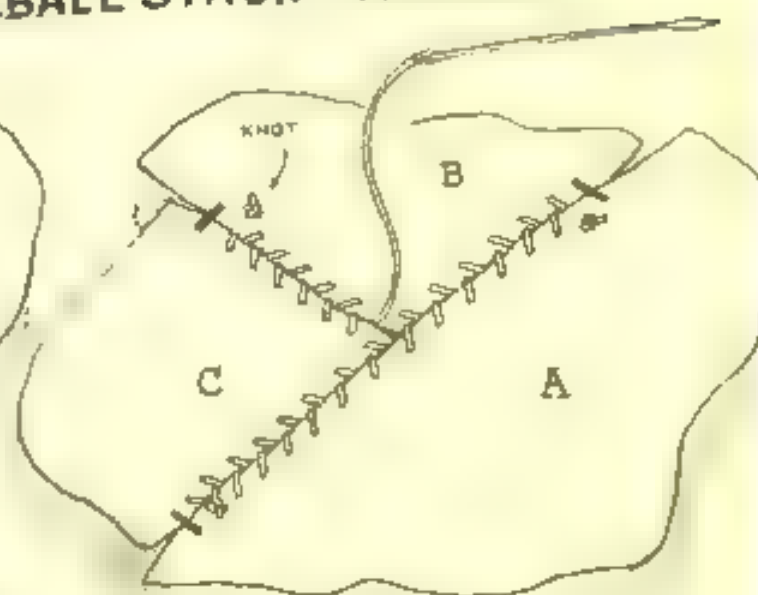
Push needle down through corner of piece C up over piece A.

SEWING THE BASEBALL STITCH - Cont. nued



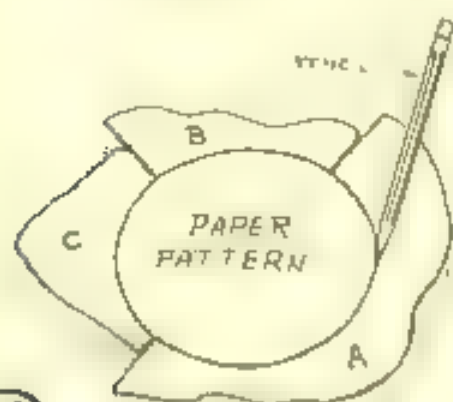
17

Continue sewing to within $\frac{1}{8}$ " of marks on pieces A and C. Tie knot . . . cut off thread.



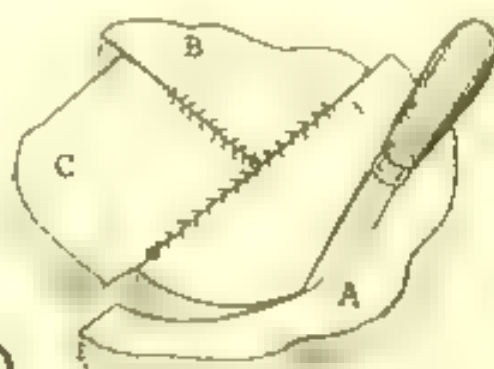
18

Tie knot in end of thread and sew pieces B and C together. Tie knot . . . cut off thread. Sewing is complete.



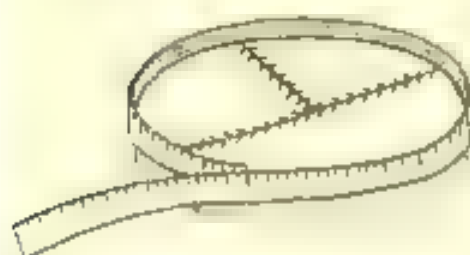
19

Place pattern in position and draw around with pencil.



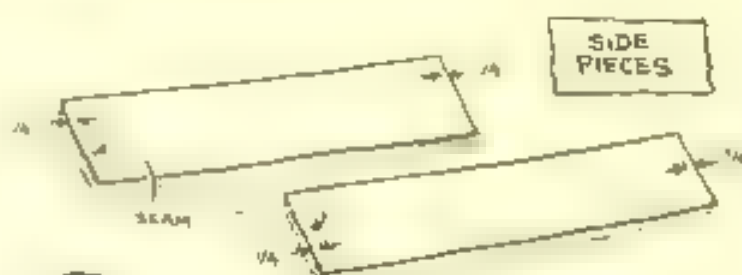
20

Trim off excess shearing with a sharp knife. Make two covers of this size.



21

To determine length of side piece measure around cover. Allow $\frac{1}{2}$ " extra length for seams. ($\frac{1}{4}$ " on each end.)

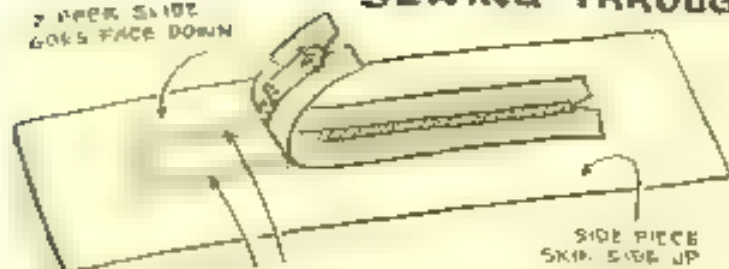


22

The side piece may have to be made in two pieces . . . for a large diameter cover. The project illustrated, was made in two pieces . . . of $\frac{1}{4}$ " shearing, it was cut 4" wide to accommodate the foam rubber padding used. Allow $\frac{1}{4}$ " at each end for seams.

SEWING THROUGH THE SHEARLING

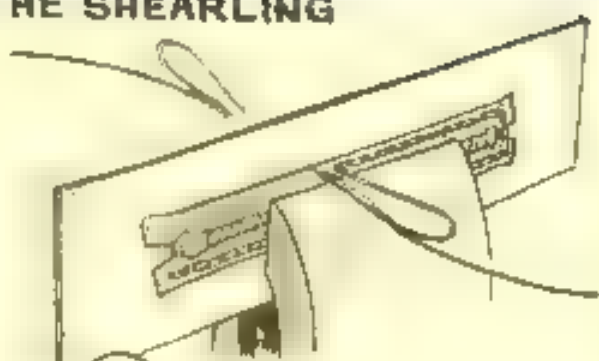
ZIPPER SLIDE
GOES FACE DOWN



APPLY RUBBER CEMENT
TO EDGES OF ZIPPER AND TO
SKIN WHERE EDGES WILL ADHERE.

23

Next, install a heavy duty zipper in center of one of the side pieces. For 14" diameter cover use a 12" to 14" zipper. Cement face down to skin side. Do not apply cement in area where zipper slide will pass along zipper. Use a non-locking type zipper slide. Do not cut opening in shearling yet.



24

Place in stretching horse and sew along the edges of the zipper tape and across the slide. See spreading note below.

SEWING THROUGH THE WOOL

SPECIAL NOTE:

You cannot sew through the wool without special preparation of the thread ... as the wool fibers will "grab" the thread ... and pull it into the awl hole, virtually locking the stitch. To overcome this, make a thread in the usual manner. Wax with bees wax. Now, tear a piece from a paper bag.



PIECE OF BAG

PLAIN PAPER BAG

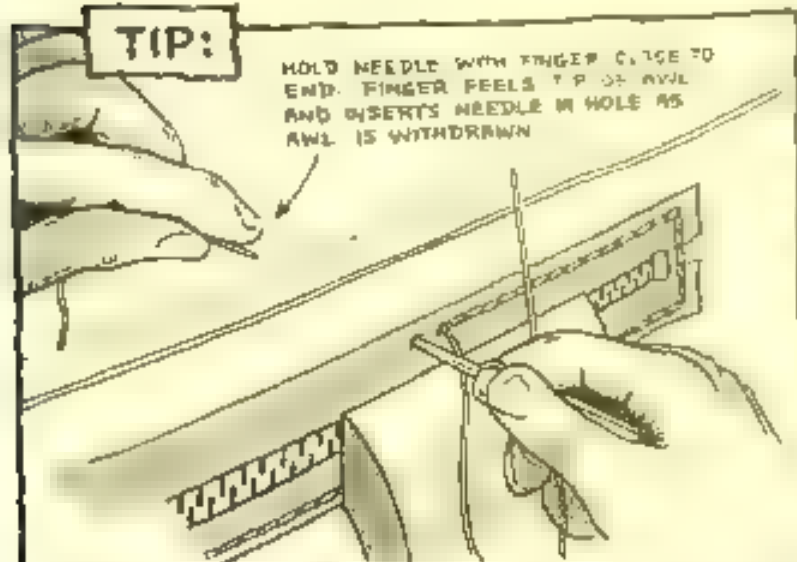
PREPARING THE THREAD



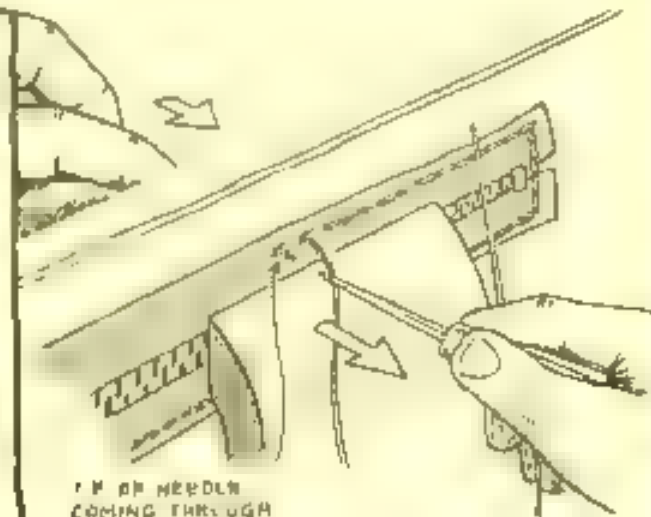
Rub vigorously back-and-forth over the thread. This hardens and burnishes the wax ... and the threads will easily pass through the holes.

TIP:

HOLD NEEDLE WITH FINGER CLOSE TO
END. FINGER FEELS TIP OF AWL
AND INSERTS NEEDLE IN HOLE AS
AWL IS WITHDRAWN



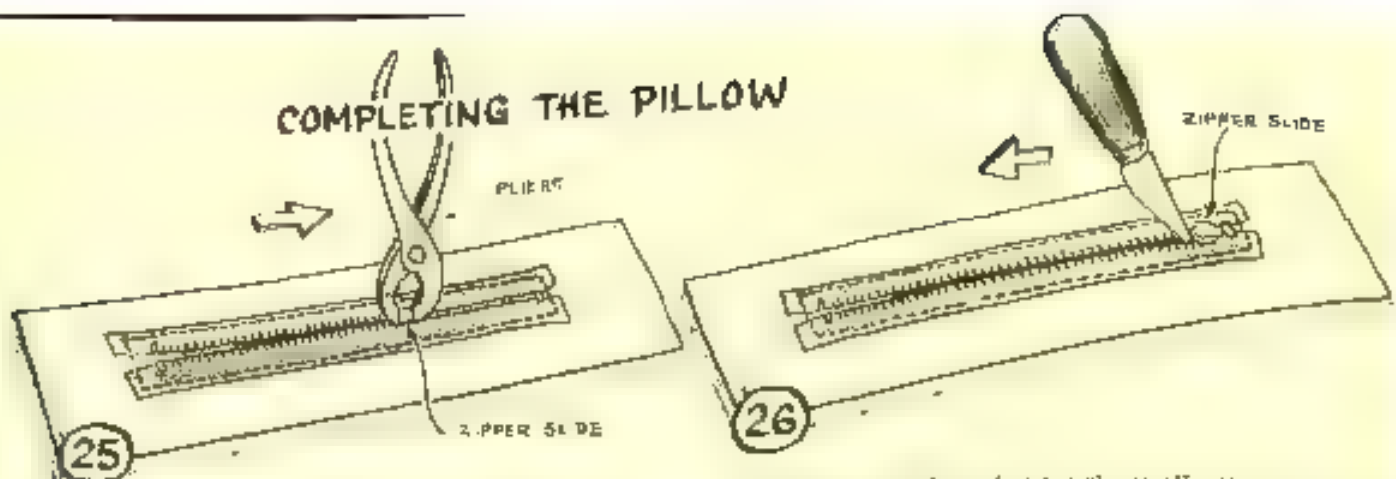
When sewing through wool ... the back side awl hole cannot be seen. Therefore, as the awl is about to be withdrawn, the index finger of left hand must feel tip of awl blade ... and left hand needle must follow awl as it is withdrawn.



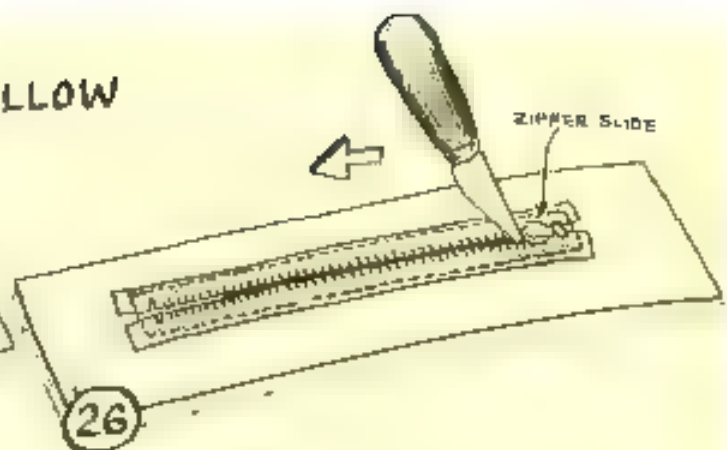
TIP OF NEEDLE
COMING THROUGH

Some practice will be necessary to become proficient. This practice will benefit your regular sewing ... as you should seldom look at the back side while sewing.

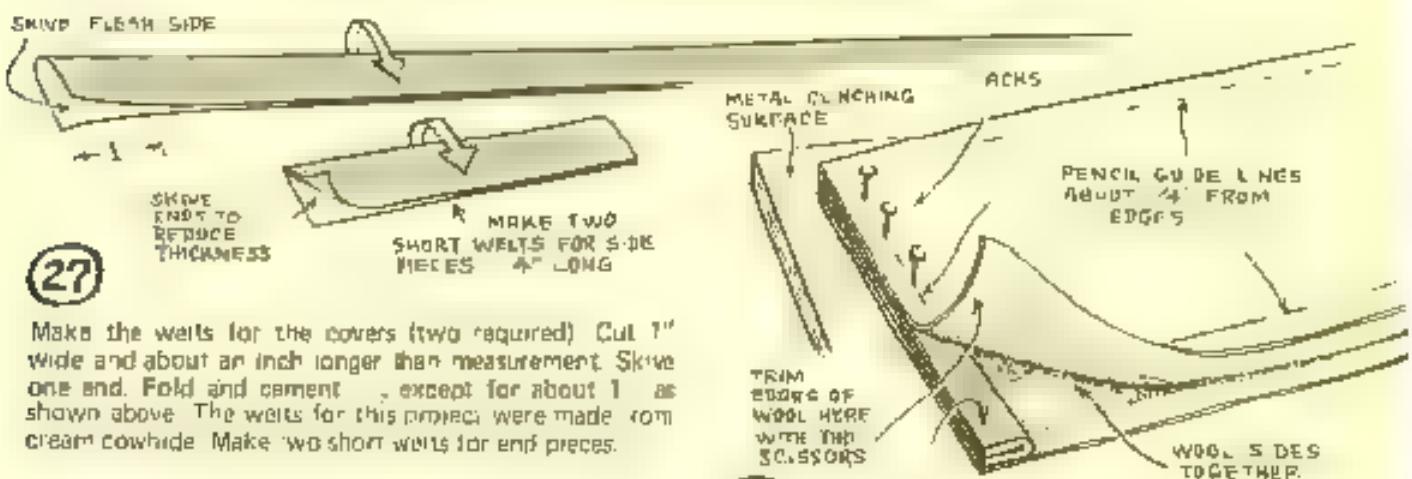
COMPLETING THE PILLOW



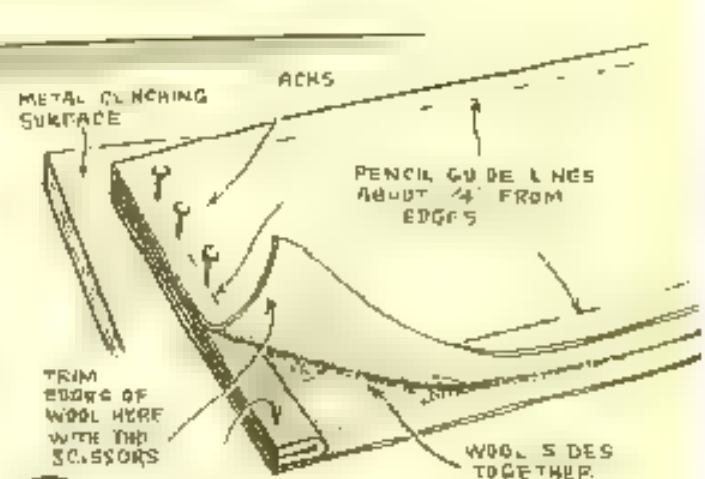
With zipper sewn in place, grasp bottom of zipper slide with pliers and pull zipper open.



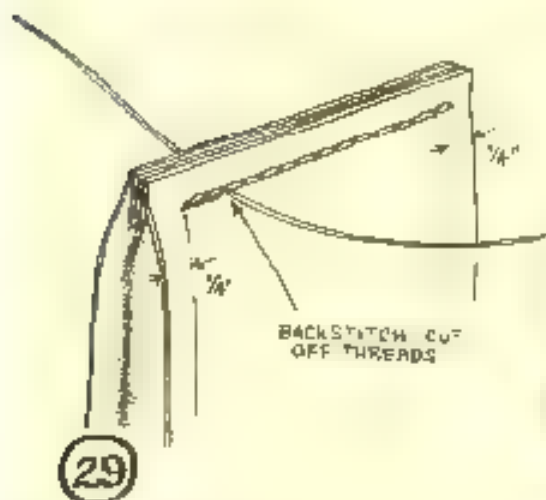
Take a sharp knife and cut a single slit, through the wool skin, the full length of the zipper. No more cutting is necessary.



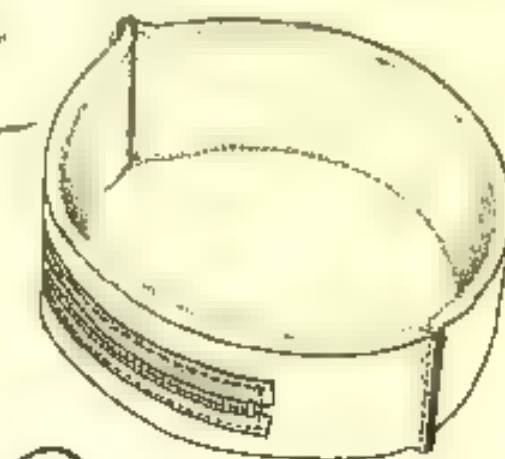
Make the welts for the covers (two required). Cut 1" wide and about an inch longer than measurement. Skive one end. Fold and cement, except for about 1" as shown above. The welts for this project were made from cream cowhide. Make two short welts for end pieces.



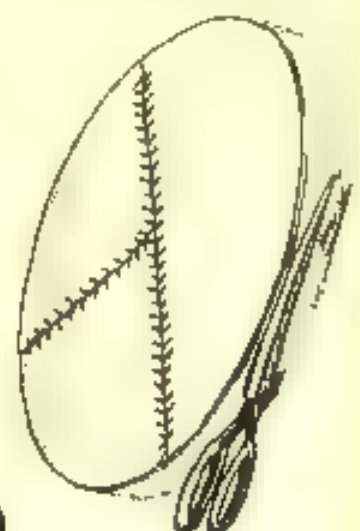
Fit ends of side pieces and welt together, as shown above. Tack in place. Try to keep all edges flush.



Sew across end. Sew to within 1/4" of each side. Before sewing other ends together, fit around cover to check measurements. Sew welt in other ends of side pieces.

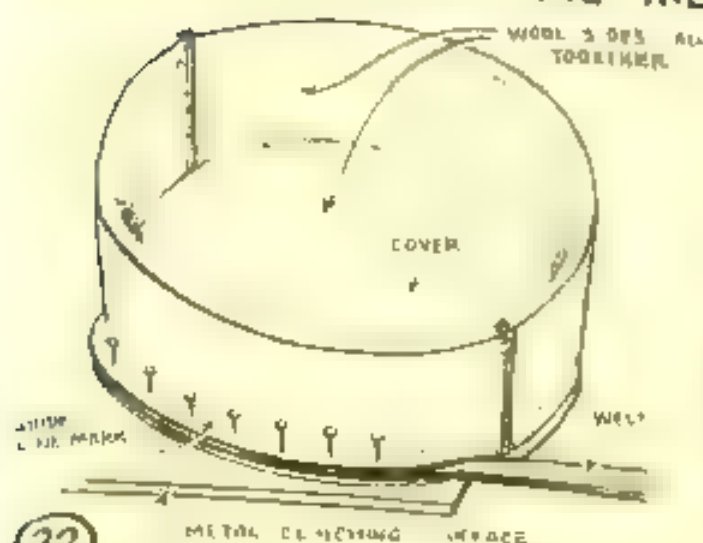


Sides... ready to install



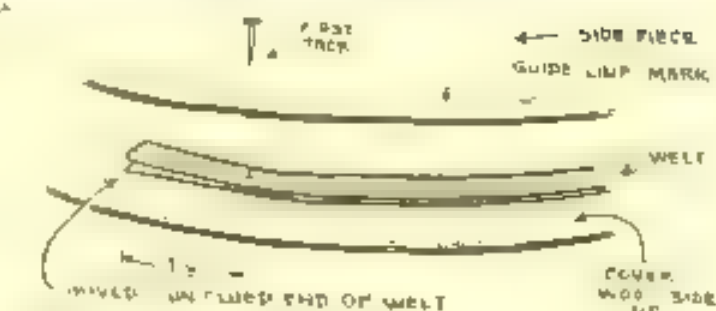
With scissors, trim off fringe of wool around outside edges of the covers.

COMPLETING THE PILLOW - Continued



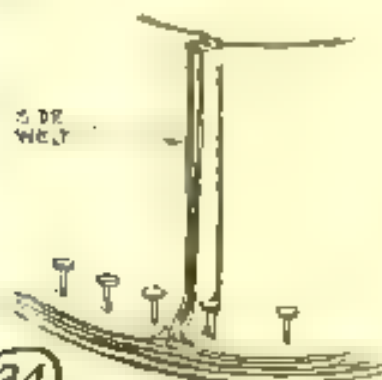
32

The sides are tacked to the cover as shown above with welt in between. Space tacks about 1" apart.



33

Begin first tack about 1/4" away from open end of welt. The wool side of the cover is up. Hold all parts firmly in place with left hand as you tack.



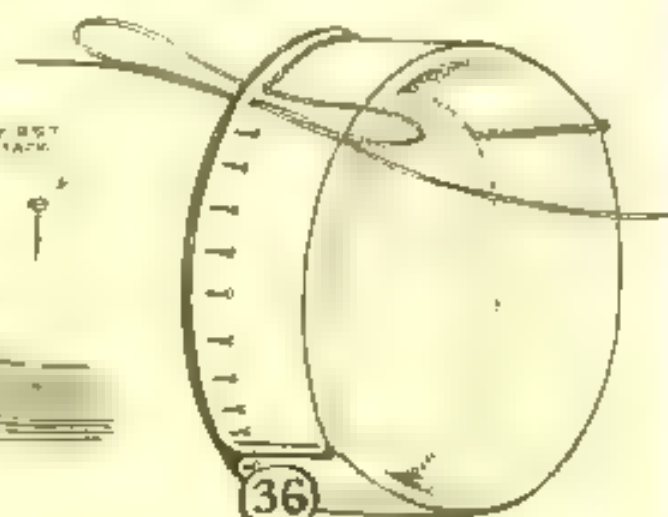
34

When you come to the side welts spread ends and force a bend in them. Tack securely. Sew over these welted ends.



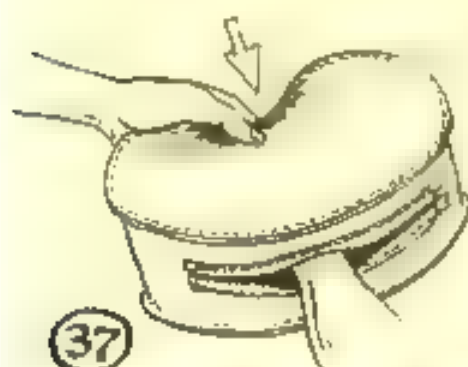
35

To complete trim end of welt allow 1/2" overlap. Insert in open end of welt, complete tacking.



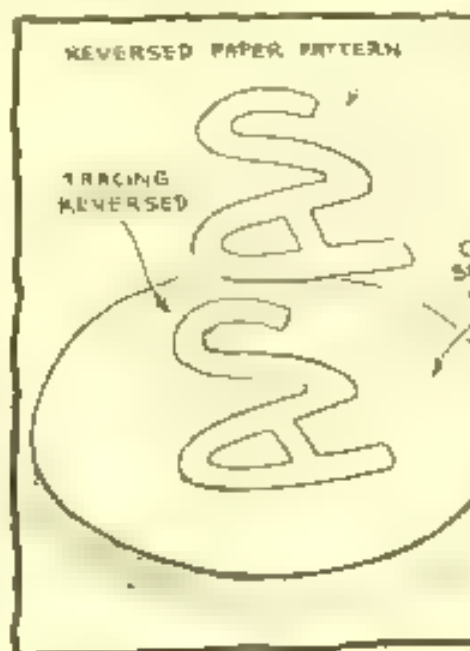
36

Sew completely around the cover - pulling tacks as you go. If the project will not fit in stitching horse hold between legs. Fit other cover to sides wool inside tack and sew as with first cover.



37

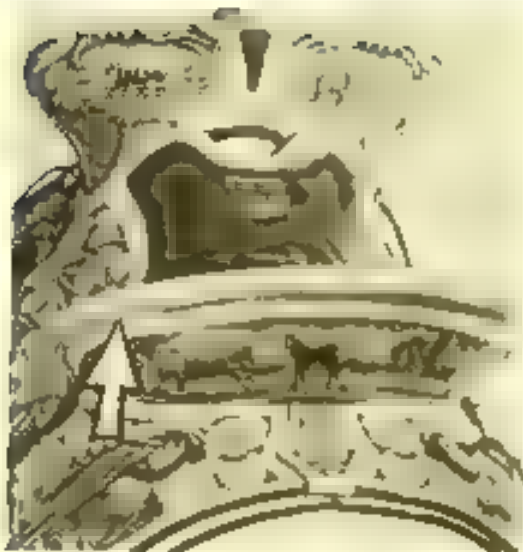
When sewing is completed, open zipper reach arm inside and turn the pillow inside out coming out the zipper opening. Insert foam padding into pillow case through zipper opening.



NOTE:

When inserting initials or brands - make a pattern and trace it in reverse to the skin side of shearing. Trace in reverse, also, to contrasting colored shearing. Sew in with basic stitch.

THE HIDDEN STITCH

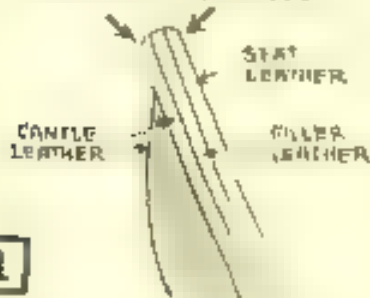


The hidden stitch is used when a binding material is put over several thicknesses of leather. To cover the edges, making a more finished edge. Since it is difficult to make even blindstitch stitches on the back side when sewing through several thicknesses of leather, the stitches on the back side are hidden.

This is accomplished by setting the binding leather (on back side) and bringing the stitches out in the cut. Follow step 1 from below.

Arrow points to hidden stitches at back of cover in binding, on saddle three.

ROUND EDGES WITH A LARGE EDGE BEVELER OR FINE SHARP TOOL



2

Cut the binding leather from 6-7 oz cowhide. Cut a strip of the $\frac{1}{4}$ " wide and fold over cantle, as shown above, to determine how wide the binding leather

GOUGE A SEWING CHANNEL ALONG ONE EDGE

GRAIN SIDE

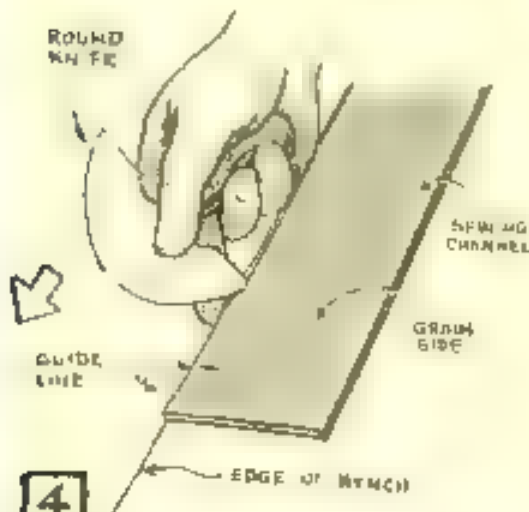
SCORE A GUIDE LINE $\frac{1}{16}$ " FROM EDGE WITH DIVIDERS

WIDTH OF BINDING LEATHER

3

Cut a length of binding leather 6-7 oz to width determined in step 2. Long enough to fully cover from one side of the project to the other. Prepare the leather as instructed above.

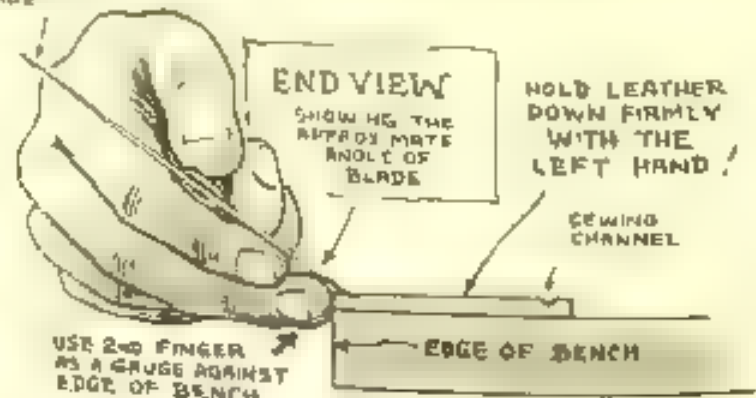
ROUND KNIFE



4

Place binding leather flush with edge of bench. Use the round knife (or other sharp knife) and cut an angled slit into the binding leather on the guide line.

ROUND KNIFE BLADE



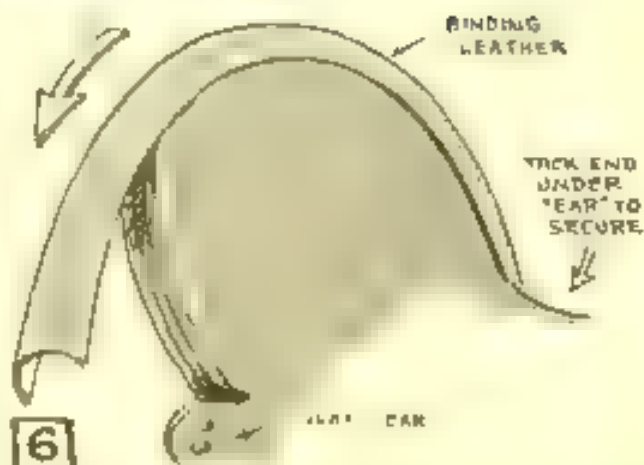
This view shows the angle to hold the blade. Note the angle. Use finger against the edge of the bench as a gauge. Cut into the leather about $\frac{1}{4}$ depth. Follow the $\frac{1}{16}$ " guide line. Practice cutting on scrap leather first.

SEWING THE HIDDEN STITCH



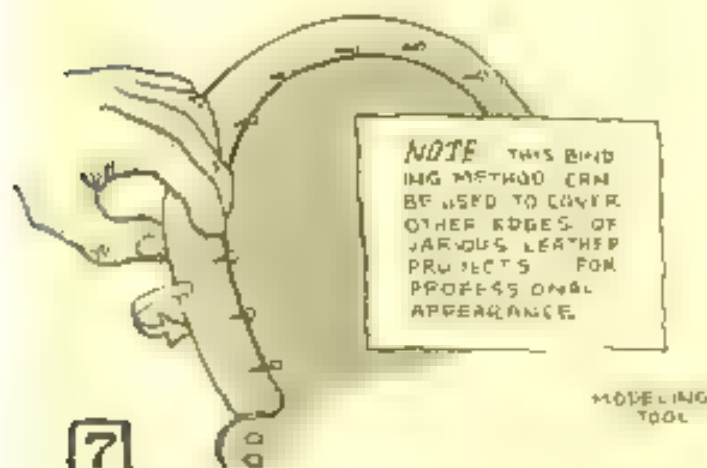
5

Thoroughly soak the binding leather. Wrap in plastic bag over night to "case" (soften) the leather. Next day remove it when leather is about half dried out. Run the oversitch wheel in the sewing channel.



6

While leather is still moist, stretch over cantile leathers, as shown. Secure first end with tack, pull over cantile last left, tack under "ear" and secure other end with tack.



7

Tack binding in place all around in sewing channel. Use fingers to shape leather over back side of cantile.

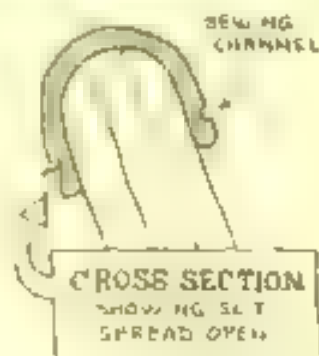
NOTE THIS BINDING METHOD CAN BE USED TO COVER OTHER EDGES OF VARIOUS LEATHER PROJECTS FOR PROFESSIONAL APPEARANCE.

MODELING TOOL



8

Use the spoon of your modeling tool to spread the slit open on back side.



CROSS SECTION SHOWING SLIT SPREAD OPEN



9

Make a thread sew in the usual manner. Some practice will be required to make the awl come out in the open slit. Watch for point of awl blade. If it wants to come out in the wrong place, withdraw about half way and angle blade until it comes out in the slit.



CROSS SECTION SHOWING AWL BLADE PROPERLY COMING OUT IN SLIT



10

When sewing is completed, use a bone folder to lay it thick down. No steam is necessary. No glue is required. Edge bevel along the slitted edge.

SEE PHOTO ON PAGE 54 FOR FINISHED EXAMPLE

SEWING ROUNDS



"ROUNDS" are used for handles, headstalls, reins, or other lewis where a firm, round appearance is desired. This method is used on bridles where silver ferrules are added for showy effect.

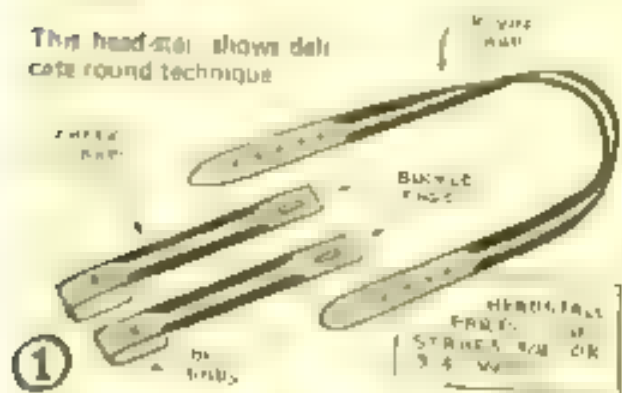
The hidden stitch is used, as previously described. However, it is used on both edges of the leather where sewn.

Space denies us patterns for bridges, etc. Our purpose here is to show you *how* to do it! Pattern dimensions, etc., can be obtained from other sources, or by measuring an old head-stall, handle, etc.



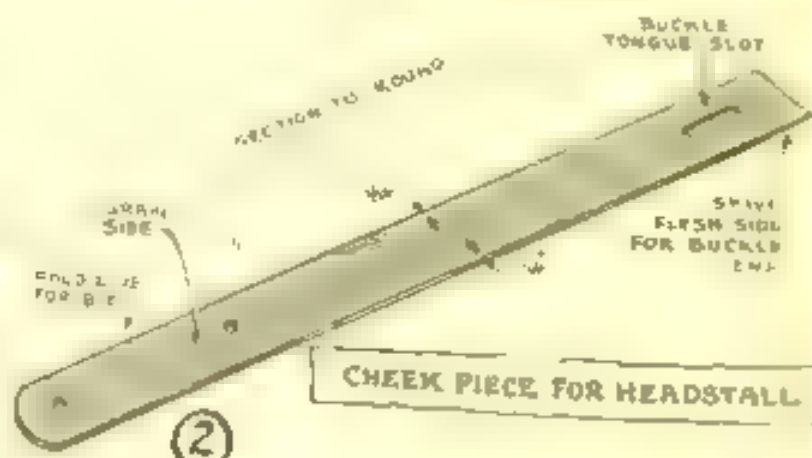
Handles here are shown with the "round" sawing.

The head set shows data
code round technique

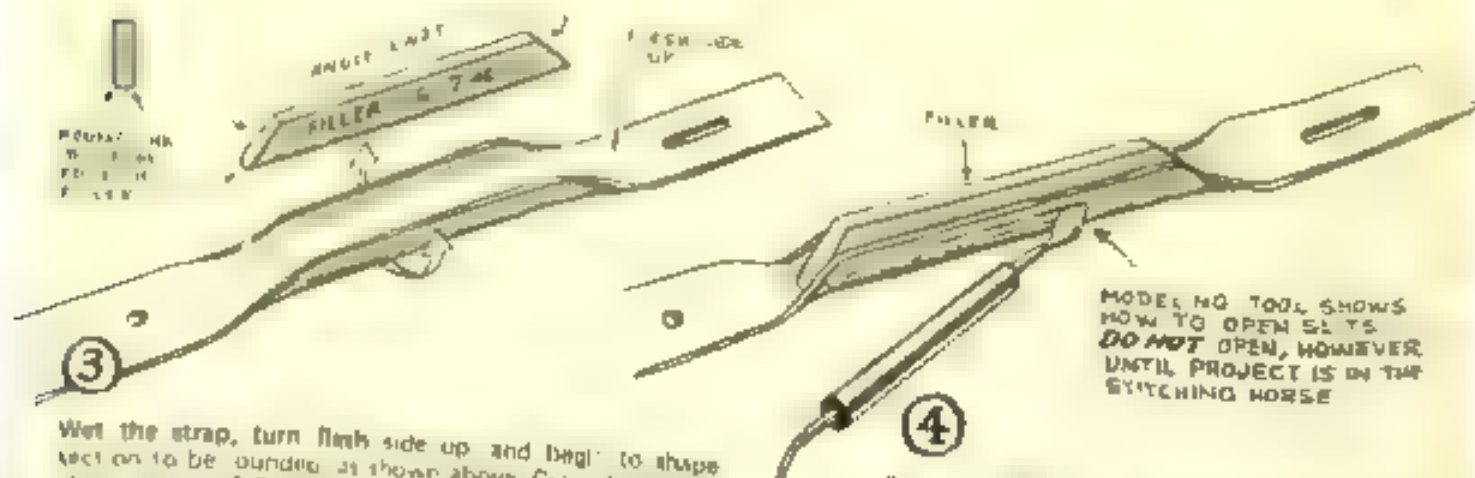


To make a hat with
wavy band. Sew band
to the finished

"about midday at 100"



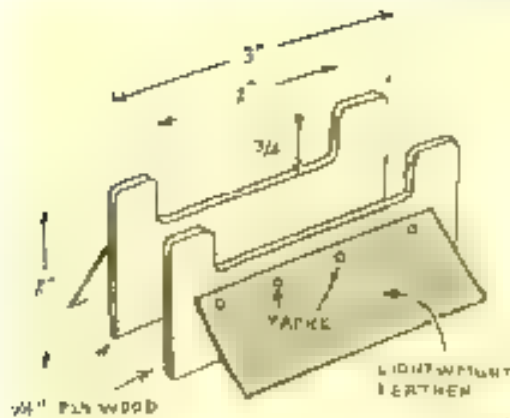
Scribe a guide line on both edges of section to
found and cut an angled slot in each edge same as
for the hidden slot on page 54



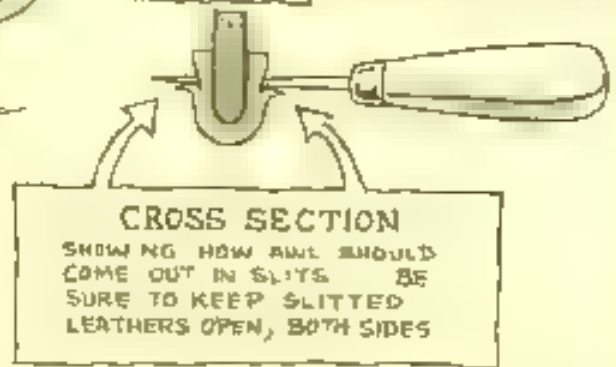
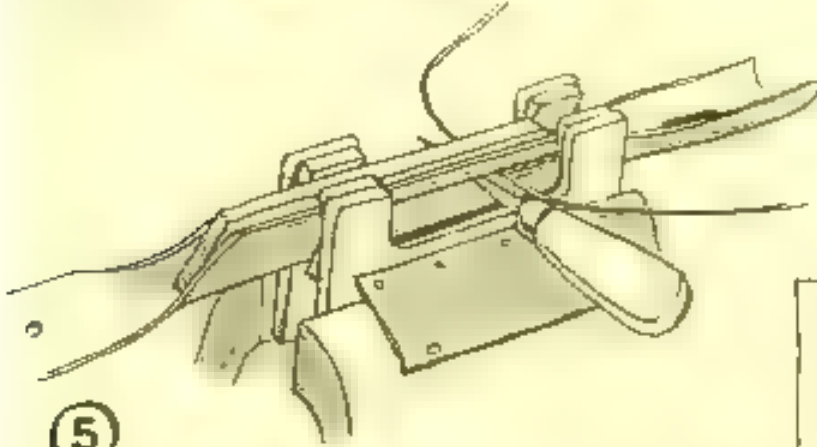
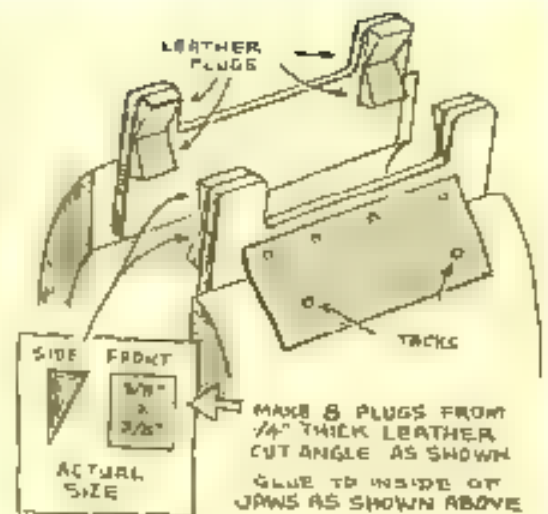
Wet the strap, turn flesh side up and begin to shape neck on to be rounded as shown above. Cut a leather strip about 1" to 3/8" longer than the angled side and about 3/8" to 1/2" wide.

Glue the filer in place with strong bonding cement. Be sure filer rests in bottom of mold. Tap with hammer to insure adhesion. Do not open slits until step 5.

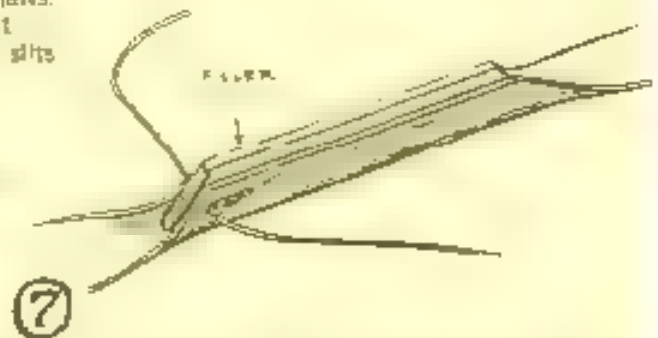
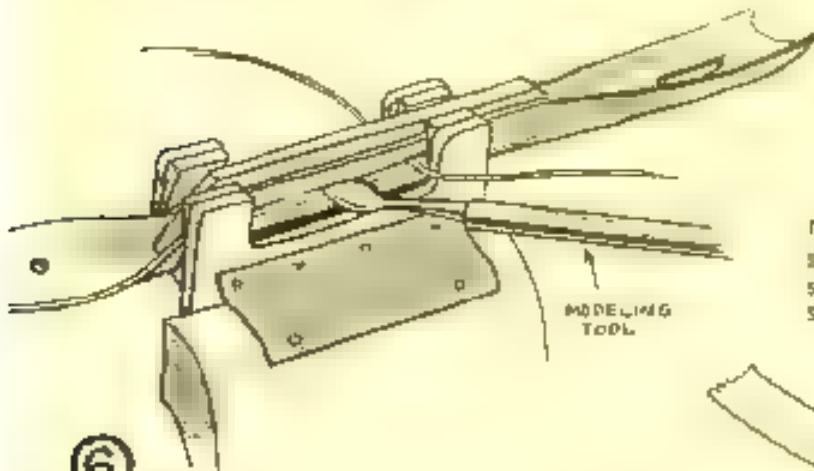
SEWING ROUNDS -



To aid in sewing rounds, cut two pieces of plywood as shown at left. Tack, or glue pieces of leather to them, as shown, at upper edge. Tack these to the jaws of your stitching horse as illustrated at right.

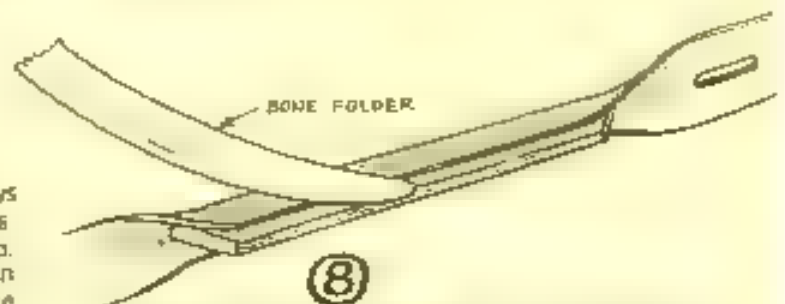


Place work in stitching horse. Open slits between modified jaws. Space stitches by eye; do not "wheel". Stab awl at base of slit. Awl should exit in opposite slit in the same manner. Keep slits opened between the modified jaws.



Note: Stitches should not go over end of filer. Back stitch one hole and cut off threads. Use modeling spoon to lay the slitted leather back down over stitches.

When you have sewn to the end of the modified jaws take modeling spoon and close slits, over stitches. Release jaws, move project over, reclamp. Spread slits open with the modeling spoon (between modified jaws) on both sides. Continue sewing in the slits. Repeat until you have sewn to the end of the slits.



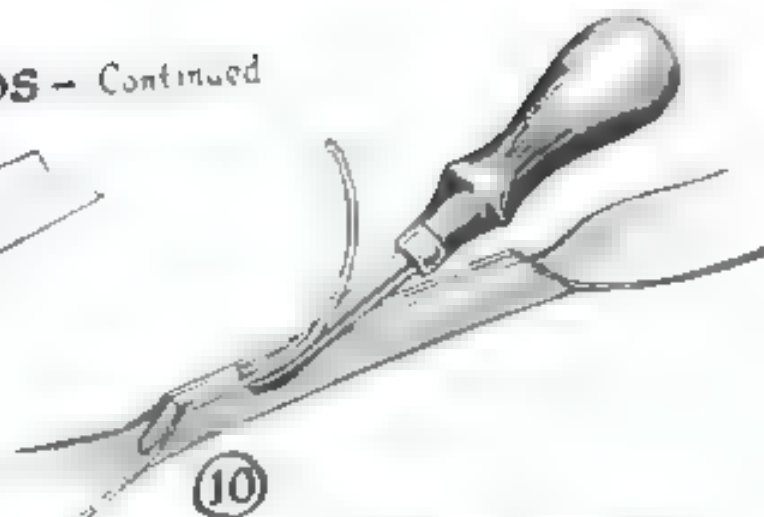
When the leather is tacked with a hammer and rub over sewn areas with the bone folder. Keep leather moist with a damp sponge.

SEWING ROUNDS - Continued



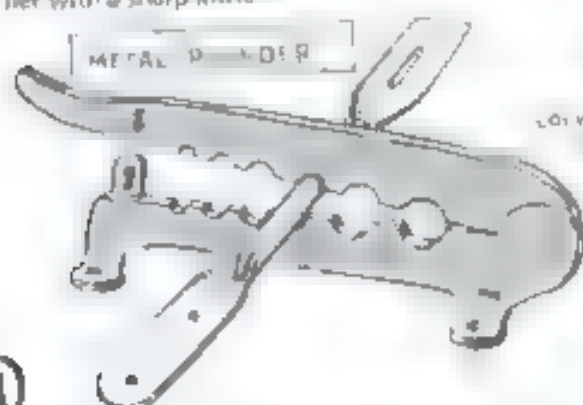
⑨

Trim up project in stitching holes and trim off excess filler with a sharp knife.



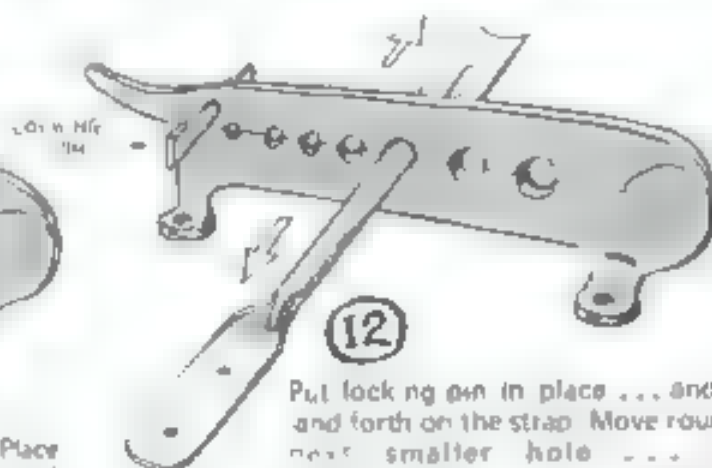
⑩

Round the edges with a large edge beveler.



⑪

Moisten the leather and place into "rounder". Place in larger hole to start, then will be finished size of the round.



⑫

Put locking pin in place ... and pull back and forth on the strap. Move round down to next smaller hole ... and work back and forth. Work into smallest hole it will go, to make a perfect round.

INSTALLING SILVER FERRULES

BUCKLE END MUST BE WRAPPED AROUND UNDER FERRULES SET OVER END DOWN IN ROUNDED PART

WEAVE BUCKLE END BACK OUT AND SET IN BUCKLE END LOOP

CHISEL ENDS OF FERRULES TO HOLD THEM IN PLACE

NOTE: FOR 3/16" FERRULES CUT STRAP 5/8" WIDE FOR 3/8" FERRULES CUT STRAP 3/4" WIDE

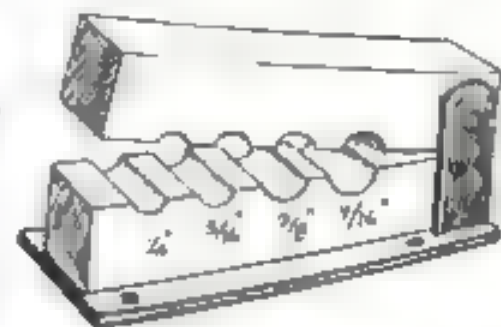
• PAGE 792



⑬

Sew buckle and leather loop in place as instructed on page 37.

MAKE YOUR OWN ROUNDER



An improved "rounder" can be made of two hard wood blocks. Clamp together bore holes. Taper outside edges of holes, polish in hole. Hinge rig up a locking pin. Use your ingenuity.

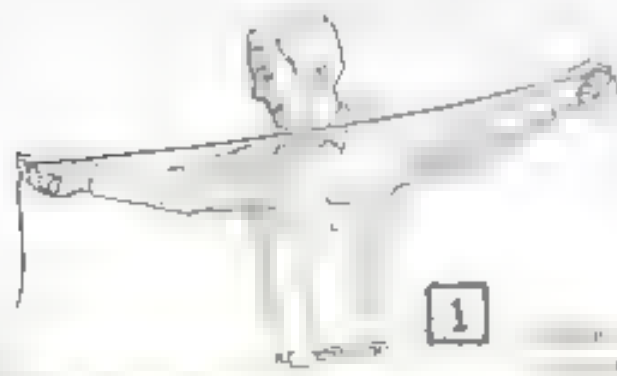
"MAKING" A THREAD



2 oz. PURE FLAX
SHOE THREAD

Hand-made threads are used when ready-made threads are unavailable or when special threads are desired. Heavy threads can be made that have tremendous strength and durability - as for archery bow strings, etc.

The illustration at right shows a hand-made (7 cord) thread for quilting the padding on a quilt. It was made from seven lengths of the 2 oz. pure flax shoe thread.



THIS END OF THREAD MUST BE
TIGHTLY JOINED TO THE OTHER
PAGE 5 AND 6 ON AS DESCRIBED
BELOW STEPS 2 3 4 5



- 2 After pulling out desired length of thread - place on leg and roll forward with heel of right hand (arrow). Hold with the left hand. This untwists the fibers. Hold beginning end of thread between thumb and index finger ... shown (1) above

"MAKING A THREAD — Continued



3

With fibers untwisted ... continue to hold down with the right hand (on leg) and begin pulling outward with the left hand. Notice how the fibers are pulling apart, note thread between index and second finger. This will be the *second end* of the *first thread* indicated by (2).



4

Here ... you will notice that continued tension and pull with the left hand has the fibers almost pulled apart. Continue to hold the thread down on leg with the right hand. Moistening palm of right hand will aid in rolling the thread.



5

Here ... photo shows the threads pulled apart ... with perfectly tapered ends. You now have one thread ... end (1) is between thumb, index finger. End (2) is between index and 2nd finger. End (3) ... beginning of next thread ... is at right hand.

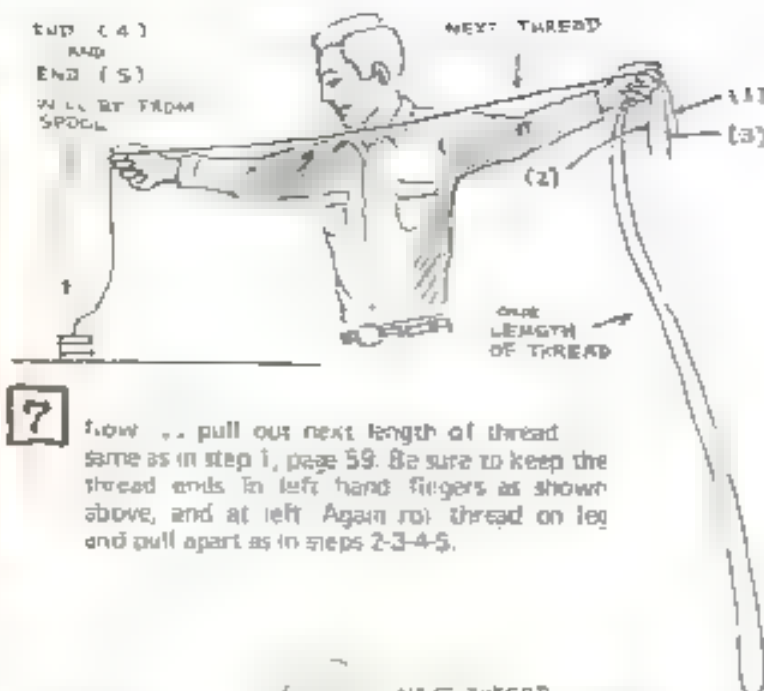
"MAKING" A THREAD - Continued



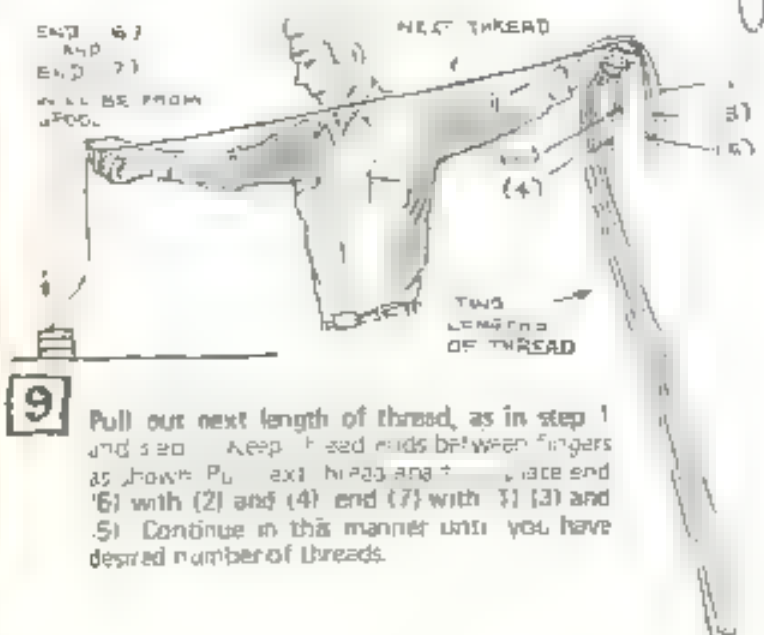
- 6** Place end (3) along with end (1) as shown above.



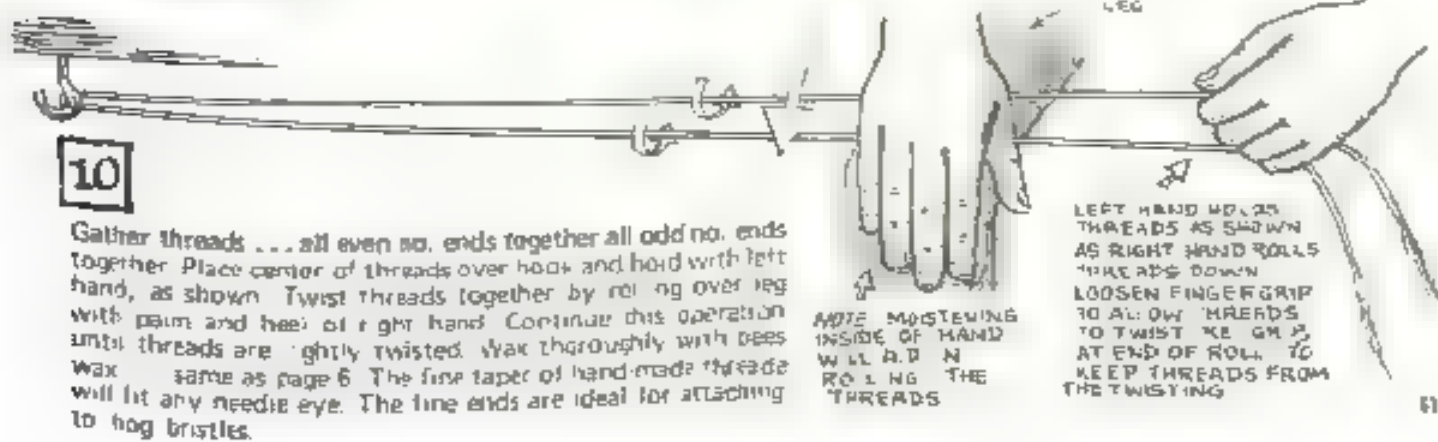
- 8** After pulling apart, end (4) should be with end (2) between index and second finger. Place end (5) between thumb, index finger (shown above).



- 7** Now ... pull out next length of thread same as in step 1, page 59. Be sure to keep the thread ends in left hand fingers as shown above, and at left. Again roll thread on leg and pull apart as in steps 2-3-4-5.



- 9** Pull out next length of thread, as in step 1 and step 2. Keep thread ends between fingers as shown. Pull next length and place end (6) with (2) and (4) and (7) with (1) (3) and (5). Continue in this manner until you have desired number of threads.



- 10** Gather threads ... all even no. ends together all odd no. ends together. Place center of threads over hook and hold with left hand, as shown. Twist threads together by rolling over leg with palm and heel of right hand. Continue this operation until threads are tightly twisted. Wax thoroughly with bees wax same as page 6. The fine taper of hand-made threads will fit any needle eye. The fine ends are ideal for attaching to hog bristles.

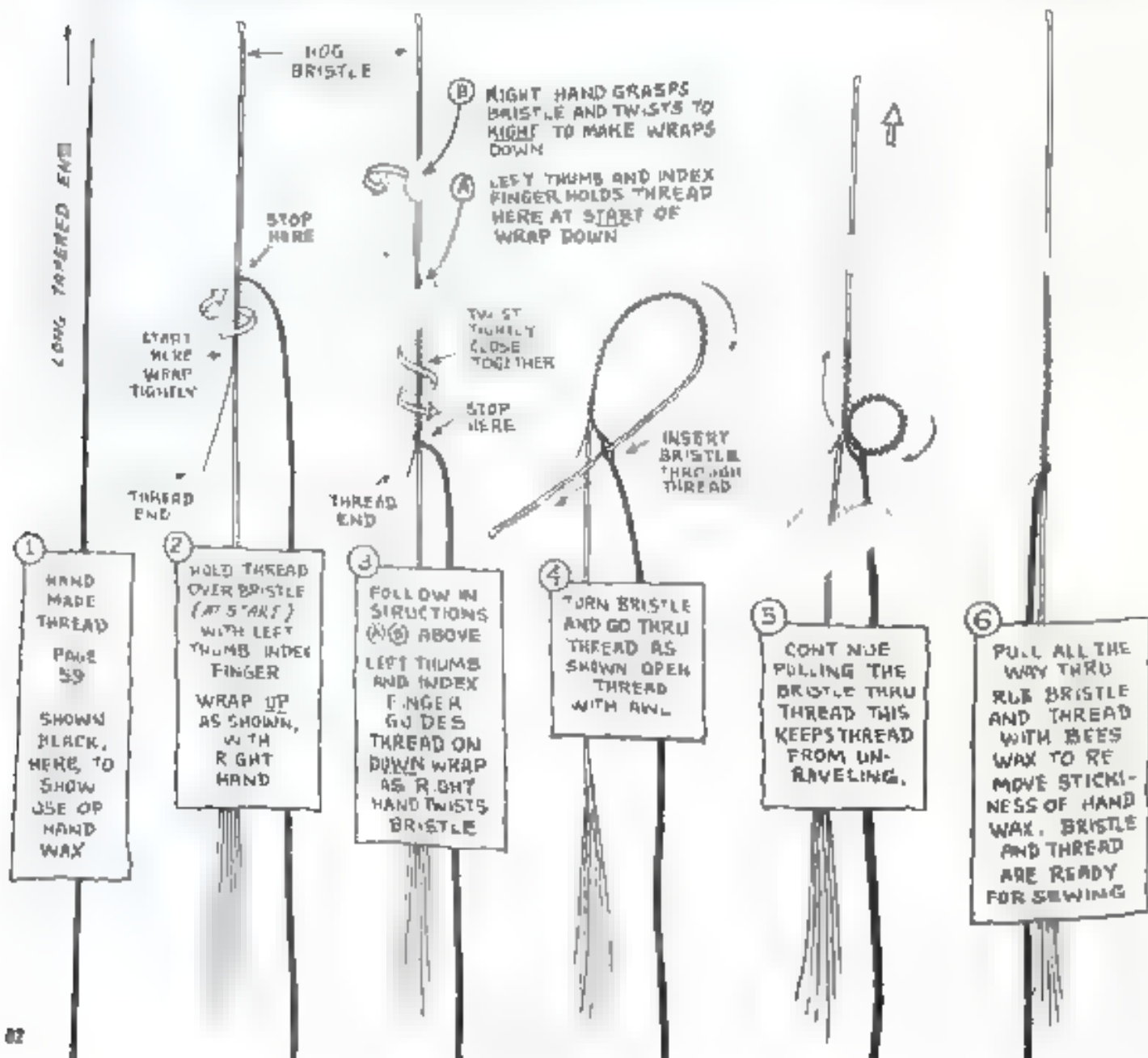
HOG BRISTLES
USED IN PLACE OF WORN NEEDLES

NOG
BR. 5112
APPROXIMATE
ACTUAL USE

Hog bristle This is the stiff coarse hair of swine & has been used for centuries as a needle for sewing articles together by hand. The awl is used to stab the holes. The hog bristles are for sewing articles together by hand. The awl is used to stab the holes. The hog bristles are for sewing articles together by hand. The awl is used to stab the holes.


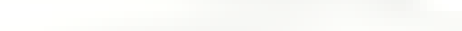
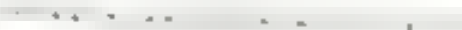


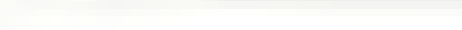
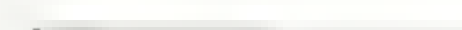
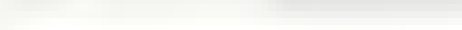
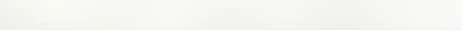
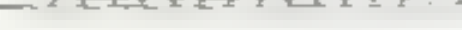
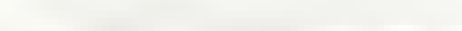

A few shoemaker's supply houses may still carry hog bristles and shoemaker's hand wax (dark or brown). The hand wax must be used to stick the thread to the bristle. Bees wax will not hold. The wax is warmed in the hand and fingers and rubbed on the long, tapered end of the thread ... and also on the bristle.

FOLLOW INSTRUCTIONS BELOW FOR ATTACHING THREAD TO BRISTLE



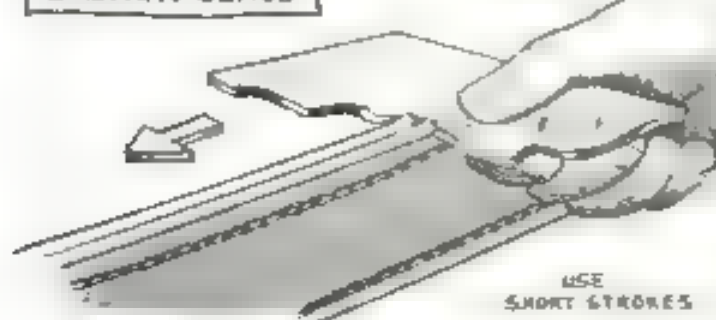
DIFFERENT SIZE OVERSTITCH WHEELS AND THREADS

The photo illustrations below show examples of hand sewing with different size overstitch wheels and threads. The no. of the wheel indicates the no. of stitches per inch. Example: no. 6 wheel: 6 stitches per inch. The photo shows the wheel size and the thread make for more of the same work. A no. 10 wheel and thread as shown should be used for the no. 9 and no. 10 stitches. A square awl break can be ground down if necessary.

THREAD SIZE AND SUGGESTED USES	THREAD	STITCHES	WHEEL MARKS	OVERSTITCH WHEEL SIZE
USE ON HAT BANDS, WATCH BANDS, ETC	2 OR 3 THREAD			No. 10
	3 CORD			No. 9
USE ON BILL FISH CO. PURSES, ETC	4 CORD			No. 8
USE ON HANO BAGS, ALBUMS, ETC	5 CORD			No. 7
FOR SADDLES, GENERAL ALL AROUND USE	6 OR 7 CORD			No. 6
USE ON GUN SCABBARDS, LINEMAN'S BELTS, HEAVY DUTY ITEMS	7 CORD			No. 5

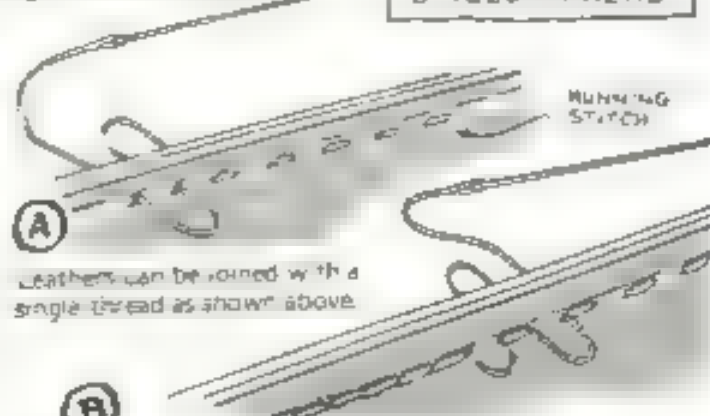
TIPS AND SUGGESTIONS

BROKEN GLASS



After sewing two or more pieces of leather together edges can be evened perfectly by running the sharp edge of a piece of broken glass over them. Hold glass firmly as shown. Use short quick strokes.

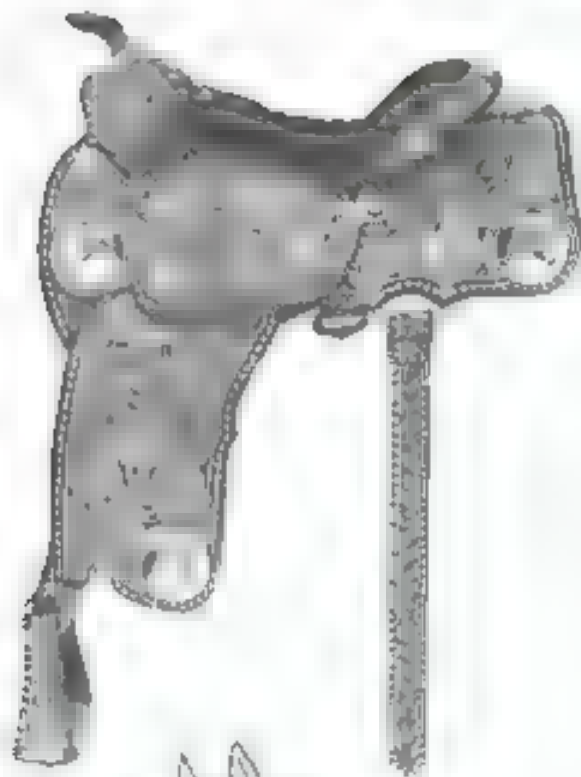
SINGLE THREAD



Leathers can be joined with a single thread as shown above.

By going back through the same holes, in the opposite direction you have the same stitch as if you had used two needles.

CONCEALED APPLIQUE' STITCH



This custom-made saddle features embossed Arabian horse heads as shown in photo at left. They were cut out and sewn into a dark background leather with the heads and also cut out. Lines were sewn out of the saddle's saddle leather which acted as a frame for the horse heads. The heads were covered with a thin layer of leather to protect from excessive rubbing and wear.

For those wishing to do similar work, the following are some instructions. Spar does not permit any of the following information. On the other hand, it is to show you that it is possible to do this. The same methods can be applied to other subjects.



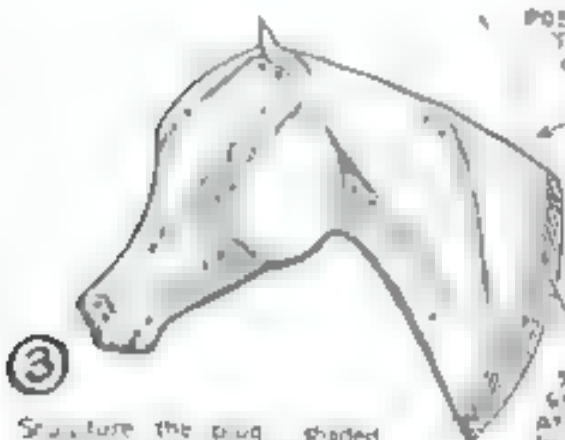
①

This is the tracing pattern for the carving design.



②

Shaded area is the leather plug for embossing the horse head. It is cut undersize.

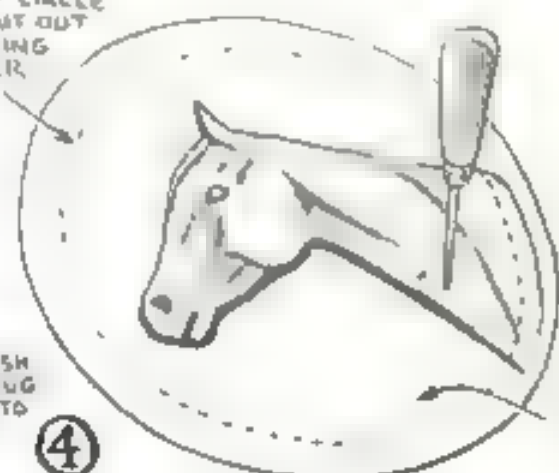


③

Shade the plug shaded areas. Black dots indicate position of awl holes, step 4.

POSITION OF CIRCLE THAT IS CUT OUT OF SKINTING LEATHER

SHAVE FLUSH SIDE OF PLUG AT NECK TO ELIMINATE BULK

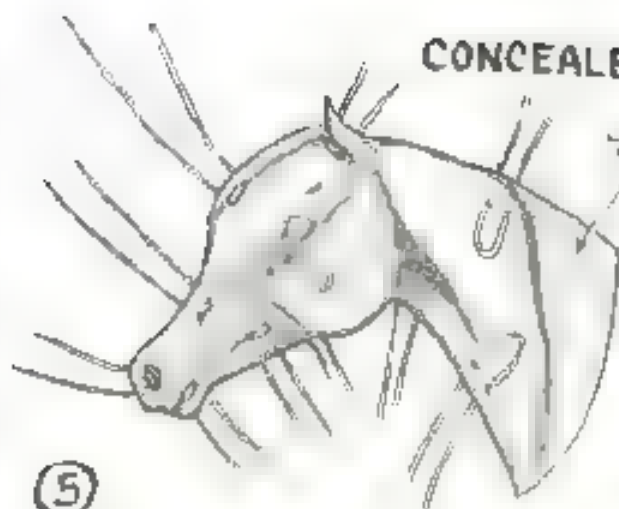


④

GOLD KID, OR BACKGROUND LEATHER

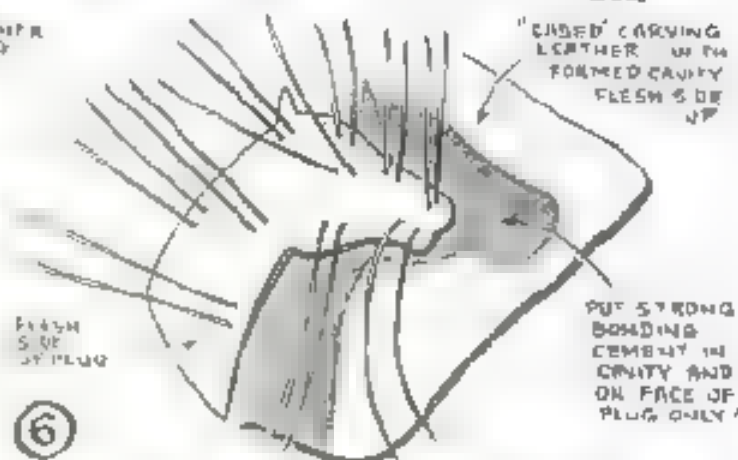
Place plug in position, on background leather and stab awl holes through plug and back leather in positions shown, step 3.

CONCEALED APPLIQUE' STITCH — Continued



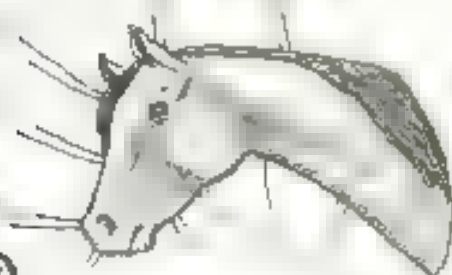
5

Insert thread through all of the stab holes in plug from step 4. Leave about 3" to 4" of ends on all of the threads. Pull the threads down tight.



6

Prepare the carving leather for embossing. Work a cavity in back of the plug. Cement the plug in place. Keep threads out of the cavity.



7

Turn leather over, cement flesh side to cardboard with rubber cement. Bevel, stamp, and make head over plug! When dry, remove from cardboard. Carefully cut out head — do not cut threads! Dry as desired and top with leather finish.



8

Now . . . put threads down through holes in background leather punched with awl in step 4. Pull threads up tight and tie.



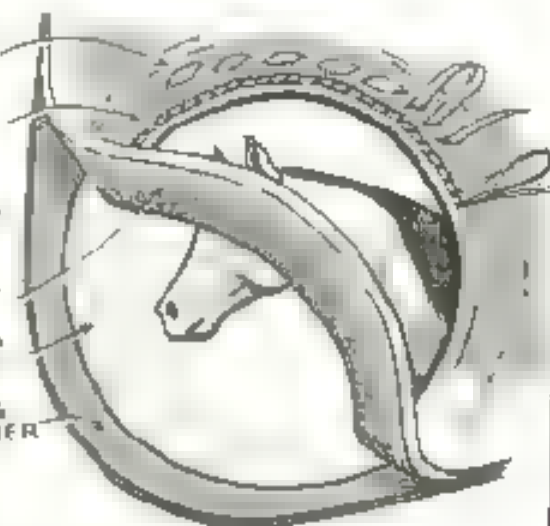
BUCKSTITCH WITH LACE

OR
HAND SEW WITH THREAD

SKIRTING LEATHER WITH CIRCLE CUT OUT

GOLD KID

LINING LEATHER



9

Cement head and background to lining. Cement skirt leather cut-out in place; sew or see through all leathers. Photo at left shows head acting as.

HOW TO MAKE THE AL STOHLMAN (QUARTER HORSE) STITCHING PONY



RIGHT SIDE

FOR USE WITH
AN ORDINARY
MULTIPLE
CHAIR

CHARTERED
PERSONS
THE
JAWS ARE SET
AT ANGLE FOR
RIGHT HANDERS

COMPLETE
PLANS AND
INSTRUCTIONS
FOR MAKING



LEFT SIDE

NOTE.
THE SHAPE OF
THE SIDE
PIECES
MAY HAVE TO
VARY DEPENDING
ON THE
STYLE OF THE
CHAIR IT WILL
BE USED ON

This stitching horse was designed for the home craftsman. It is not as complicated to build as the regular stitching horse, yet will do the same job. It can be made by the average handyman in his home shop, in a few evenings. It requires little space for storage. Being used on a chair, it has the added comfort of the back rest. It makes sewing for long hours less tiring for those unaccustomed to long hours of hand sewing.

The jaws and rest, of the one shown, were made of 1/2" particle board. It is quite satisfactory. However, our instructions recommend making these parts out of 1/2" plywood. Plywood has much more strength, and will

last for many years of service.

Study all of the pages and plans before beginning to make the project. All of the materials are readily available from your hardware and lumber sources. After completion, all parts should be finished. The project can be stained or varnished, if desired, for longer serviceability and pleasing appearance. If any measurements are in doubt, the plans are drawn in scale 1/4" equals 1". Carefully study the plans and instructions and no difficulty should be encountered in constructing the "Al Stohlman QUARTER HORSE" Stitching Pony.



SPECIAL NOTE

This photo shows how back legs can be added to the Stitching Pony. This model has hardwood jaws. Seat and legs are made of pine. The horse is sanded, stained and varnished. It was made by Tom Wolfe, Edgewood, New Mexico.

1" & 1" SQUARES

SIDES

CUT FROM
1/8" PLYWOOD

MAKE ONE LEFT
MAKE ONE RIGHT

DRILL HOLES ON
LEFT SIDE ONLY!
SEE SIDE VIEW
PLAN ON PAGE 69

RIGHT
SIDE

ASSEMBLY

DRILL HOLES
FOR #12 X 2"
WOOD SCREWS

SEAT SUPPORT
CUT FROM 2" X 6"
BLOCK (STANDARD
LUMBER)

LEFT
SIDE

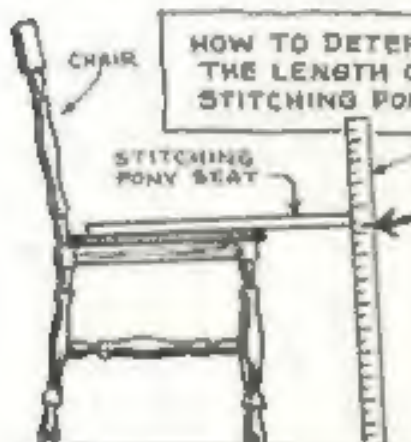
GLUE AND NAIL
OR SCREW
PARTS
TOGETHER

NOTCH LEGS
SO SIDES
FIT FLUSH
ON OUTSIDE

BE SURE CUTS
HAVE PROPER
ANGLES FOR
SPREAD OF LEGS

BRACE

1 1/2" X
1 1/2"



HOW TO DETERMINE THE LENGTH OF YOUR STITCHING PONY LEGS

CHAIR
STITCHING
PONY SEAT
RULER

PLACE STITCHING
PONY SEAT ON YOUR
CHAIR SEAT AS SHOWN
AT LEFT. HOLD RULER
AT FRONT EDGE.
MEASUREMENT AT
BOTTOM EDGE (AT
ARROW) IS LENGTH
TO CUT LEGS. AD-
JUSTABLE LEGS CAN
BE MADE TO FIT
DIFFERENT CHAIRS.
SEE PAGE 69.

ATTACHING THE JAWS

APPLY GLUE TO
PARTS (ARROWS)
FIT IN PLACE.
LEFT JAW FITS
IN SEAT SLOT.
SCREW OR NAIL
CLAMP IN PLACE.

NOTE ANGLE
OF SUPPORT
BLOCK

FIT JAWS
TOGETHER.
END OF THE
HINGED JAW
MAY HAVE TO
BE SHORTENED
A BIT. AD-
JUST BOTTOM
SO JAWS
ARE FLUSH
AT TOP.

SCREW
HINGE IN
PLACE

IF NECESSARY, TRIM
SLANTED EDGE OF THE
SUPPORT BLOCK TO INSURE
CLOSING OF JAWS.

TURN SEAT
UPSIDE DOWN
AND POSITION
LEG ASSEMBLY
1/2" FROM SIDES
AND 1/2" FROM
FRONT, AS SHOWN.
GLUE AND SCREW
IN PLACE.

APPLY GLUE TO
TOP OF LEG
ASSEMBLY AND
TO BOTTOM OF
SEAT BEFORE
SCREWING.

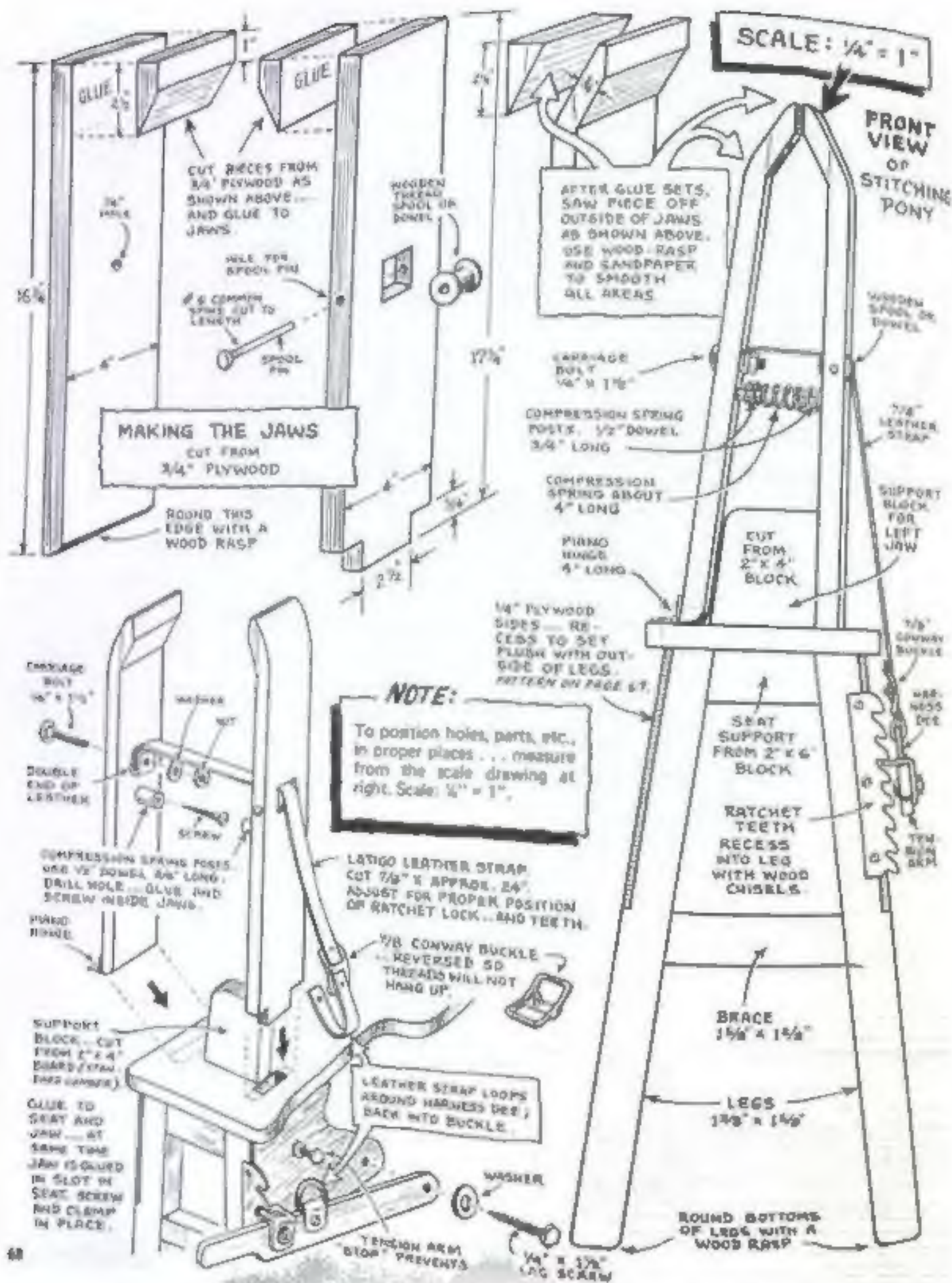
CUT SUPPORT SPACER
TO PROPER LENGTH
AND GLUE AND
NAIL OR SCREW IN
PLACE (SEE SIDE VIEW
PLAN ON PAGE 69).

BE SURE TO CUT ENDS
AT LEG ANGLES

SUPPORT SPACER
1 1/2" X 1 1/2"

NOTE:

More information is shown on the
following pages . . . as to assembly
of parts, etc. The compression spring
is installed over spring posts (inside
jaws) before the leather strap is
buckled up to the harness det.



FRONT
VIEW
OF
STITCHING
PONY

MAKING THE JAWS
CUT FROM
3/4" PLYWOOD

NOTE:
To position holes, parts, etc., in proper places . . . measure from the scale drawing at right. Scale: $\frac{1}{4}'' = 1''$.

SCALE: 1/4" = 1"

LEFT SIDE VIEW OF STITCHING PONY

HOLE FOR SPOOL PIN

CUT OUT SPOOL SLOT 1 1/2" X 1/4" IN LEFT JAW ONLY

SUPPORT BLOCK FOR LEFT JAW. SEE PAGES 62 AND 63

SIDE VIEW OF RATCHET LOCK

CUT FROM STRAP IRON 1 1/2" X 2 1/2" 1/8" THICK

BEND AS SHOWN

TOP VIEW

SIDE VIEW

SEAT SUPPORT FROM 2" X 6" BLOCK (STANDARD LUMBER)

TENSION ARM CUT FROM 1/2" PLYWOOD

1/4" HOLE FOR TENSION ARM STOP. USE MACHINE BOLT 1/2" X 1/2" SEE PAGE 63

SUPPORT SPACER

RATCHET LOCK

CARRIAGE BOLT 1/2" X 1"

1/4" HARNESSES DES.

SHEET METAL NOTCH REVERSED AS SHOWN

1. DRILL HOLE AND CHAMFER. USE HOLE P 20 X 1 WOOD SCREW

2. DRILL 3/16" HOLES

3. CUT TEETH OUT WITH HACK SAW

4. ROUND WITH FILE

ACTUAL SIZE

STRAP IRON 1 1/2" X 1 1/4" X 1/8"

RATCHET TEETH

NOTE:

All parts on this page (not shown actual size) are to scale: 1/4" = 1". Cut out slots and position parts accordingly.

HOLE FOR 1/4" LAG SCREW. DRILL 1/4" HOLE INTO SUPPORT SPACER.

SIDES - 1/4" PLYWOOD - MAKE TWO - (PATTERN - PAGE 67)

POSITION OF TENSION ARM

SPACE BETWEEN LEGS

LEGS 1 1/8" X 1 1/8"

NOTE: LEGS CAN BE MADE ADJUSTABLE IF DESIRED

POSITION OF JAWS

SEAT

CUT FROM 1/4" PLYWOOD

EACH SQUARE EQUALS 1"

CUT OUT SLOT (FOR LEFT JAW) 3/4" X 2 1/2"

1" X 1" SQUARES



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